



# Service Manual

## Nakamichi TD-700 TD-700E TD-700D

Mobile Tuner/Cassette Deck



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# 1. GENERAL

## 1.1. Packing Materials, Owner's Manual and Auxiliary Parts

Part No.	Description	Q'ty
0F03845A	Outer Carton TD-700	1
0F03853A	Outer Carton TD-700E	1
0F03836A	Outer Carton TD-700D	1
0F03822A	Inner Carton TD-700 (U.S.A.)	1
0F03823A	Inner Carton TD-700 (Canada, Australia, Others & Japan)	1
0F03827A	Inner Carton TD-700E	1
0F03835A	Inner Carton TD-700D	1
0F03831A	Packing	2
0F03832A	Sleeve	1
0D04479A	Owner's Manual TD-700/TD-500 (Japanese)	1
0D04480A	Owner's Manual TD-700/TD-500 (English)	1
0D04482A	Owner's Manual TD-700/TD-500, TD-700E/TD-500E & TD-700D/TD-500D (English/German/French)	1
0D04481A	French Text TD-700/TD-500 (Canada)	1
0B90003A	Fuse 0.5A	1
0B90042A	Fuse 1.0A	1
0B81267E	4P Terminal TD-700 & TD-700E	1
0B81271E	4P Terminal TD-700D	1
0D04207A	Metal Stay (except Japan)	1
0B80067B	Ground Wire (except Japan)	1
0J04872A	U-shaped Grip (except Japan)	2
0H04459A	Trim Panel Rim (except Japan)	1
0J04879A	Sleeve Spacer A (thin type) (except Japan)	1
0J04880A	Sleeve Spacer B (thick type) (except Japan)	1
HA04665A	Mobile Traffic Information Processor TD-700	1

## 1.2. Note on Operation

If the Rewind button is pressed before the cassette tape loading process is completed, unexpected action may occur depending on the condition of the Mobile Tuner/Cassette Deck. The cassette tape may be ejected or played back unwillingly.

## 2. REMOVAL PROCEDURES

### 2.1. Top and Bottom Covers

Refer to Fig. 2.1.

- (1) Remove F01 (Mounting Sleeve).
- (2) Loosen screws F02 (1 pec.) and F03 (2 pcs.) and remove F04 (Top Cover).
- (3) Loosen screws F05 (1 pec.) and F06 (3 pcs.) and remove F07 (Bottom Cover).

### 2.2. Front Panel Ass'y

Refer to Fig. 2.2.

- (1) Remove the Top and Bottom Covers referring to item 2.1.
- (2) Loosen F01 and pull out knobs F02, F03 and F04.
- (3) Loosen F05 and remove F06 (Front Panel Ass'y including Cleaning Flap Ass'y).

### 2.3. Control P.C.B. Ass'y and Front Chassis

Refer to Fig. 2.2.

- (1) Remove the Front Panel Ass'y referring to item 2.2.
- (2) Loosen F07 and remove F08 (Control P.C.B. Ass'y).
- (3) Loosen F09 and F10 and remove F11, F12, F13 and F14.
- (4) Insert a small flat-blade screwdriver into the holes in the Main Chassis as shown in the figure and lift the upper part of the connector to unlock the flexible P.C.B. of the LCD Ass'y.
- (5) Disconnect connectors A and B and disassemble F15 (Front Chassis including LCD Ass'y, etc.).

### 2.4. Volume P.C.B. Ass'y

Refer to Fig. 2.2.

- (1) Remove the Front Chassis referring to item 2.3.
- (2) Loosen F16 and disassemble F17 and F18 (Volume P.C.B. Ass'y).

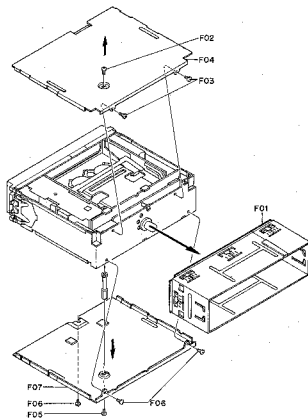


Fig. 2.1

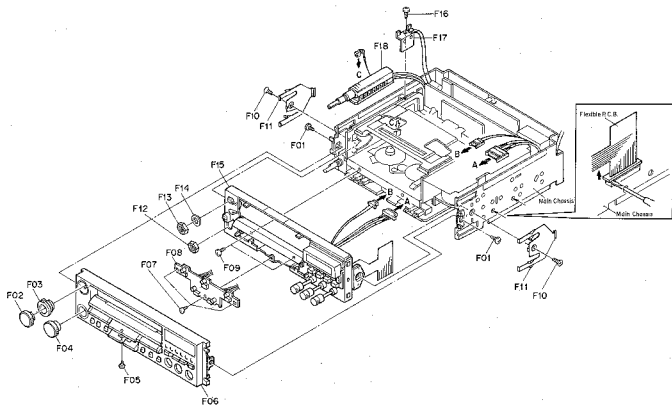


Fig. 2.2



### 2.5. Tuner P.C.B. Ass'y

Refer to Fig. 2.3.

- (1) Remove the Top and Bottom Covers referring to item 2.1.
- (2) Loosen F01, disconnect connectors A and B, and remove F02 (Tuner P.C.B. Ass'y) and F03.

### 2.6. Motor P.C.B. Ass'y

Refer to Fig. 2.3.

- (1) Remove the Top and Bottom Covers referring to item 2.1.
- (2) Loosen F04 and disconnect connectors C, D, E and F.
- (3) Remove F05 (Motor P.C.B. Insulator) and F06 (Motor P.C.B. Ass'y).

### 2.7. Amp. P.C.B. Ass'y

Refer to Fig. 2.3.

- (1) Remove the Top and Bottom Covers referring to item 2.1.
- (2) Remove the Tuner P.C.B. Ass'y and Motor P.C.B. Ass'y referring to items 2.5 and 2.6.
- (3) Loosen F07 and disconnect connector G.
- (4) Lift F08 (Amp. P.C.B. Ass'y), disconnect connectors H, I and J, and remove F08 (Amp. P.C.B. Ass'y).

### 2.8. Transport Mechanism Ass'y

Refer to Fig. 2.4.

- (1) Remove the Front Chassis and the Volume P.C.B. Ass'y referring to items 2.3 and 2.4.
- (2) Loosen F01, remove F02, and lift F03 (Motor P.C.B. Ass'y).
- (3) Disconnect connectors A, B, C and D.
- (4) Pull out F04 (Amp. P.C.B. Ass'y) and disconnect connector E.
- (5) Loosen F05, lift F06 (Transport Mechanism Ass'y and Motor P.C.B. Ass'y), and disconnect connector F to separate F06.

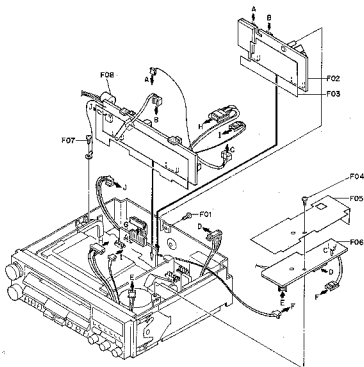


Fig. 2.3

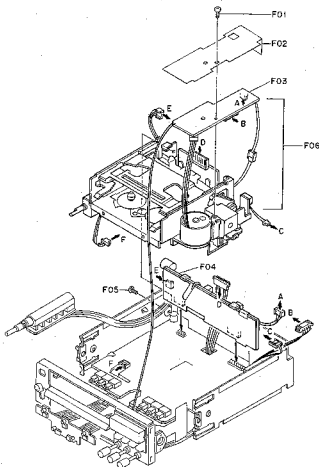


Fig. 2.4

### 3. TEST TAPES AND GAUGES

- (1) 1 kHz Track Alignment Tape (DA09007B)
- (2) 15 kHz Azimuth Tape (DA09004B)
- (3) 400 Hz Level Tape (DA09005B)
- (4) 3 kHz Speed & Wow/Flutter Tape (DA09006C)
- (5) Torque Gauge for Forward Playback (DA09082A)
- (6) Torque Gauge for F.F. & REW (DA09084A)
- (7) Head Alignment Gauge (DA09092A)

### 4. MECHANICAL ADJUSTMENTS

Note: Before adjustment, remove the Top and Bottom Covers referring to item 2.1.

#### 4.1. Tape Speed Adjustment

Refer to Fig. 4.1.

- (1) Connect a frequency counter to Output Jack.
- (2) Load a 3 kHz Speed & Wow/Flutter Tape and play it back.
- (3) Adjust the potentiometer incorporated in the Main Motor Assy to obtain a 3 kHz reading on the frequency counter.

#### 4.2. Tape Guide Height Adjustment

- (1) For Serial Nos.: C60502839 - (TD700 & TD-700E) and C60701201 - (TD-700D)

Note: Remove the Cleaning Flap before loading the Head Alignment Gauge. When ejecting the Head Alignment Gauge pay attention so as not to strike against the Tape Slot Cover.

Refer to Fig. 4.2.

- (a) Turn the Azimuth Fine Tuning Control fully clockwise and then return it by 15 clicks to set it to the center position.
- (b) Load a base of the Head Alignment Gauge carefully and set the Mobile Tuner/Cassette Deck in Play mode.
- (c) Place a small block of the Head Alignment Gauge on the base.
- (d) Slide the small block against the Supply Tape Guide, and adjust the Tape Guide Height Adjustment Screw so that the small block is accepted by the Supply Tape Guide.

- (2) For Serial Nos.: C60501001 - 02838 (TD-700 & TD-700E) and C60701001 - 01200 (TD-700D)

Refer to Fig. 4.3.

- (a) Set the Azimuth Fine Tuning Control fully clockwise and then return it by 15 clicks to set it to the center position.
- (b) Connect a VTVM to the Output Jacks.
- (c) Load a 1 kHz Track Alignment Tape and play it back.
- (d) Turn the Tape Guide Height Adjustment Screw to obtain minimum readings on the VTVM for both channels.

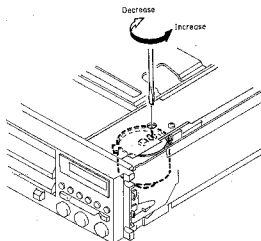


Fig. 4.1

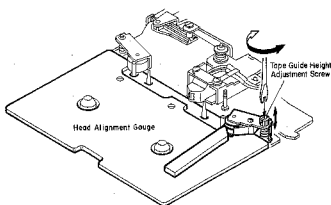


Fig. 4.2  
Serial No.: C60502839 -  
(TD-700 & TD-700E)  
C60701201 - (TD-700D)

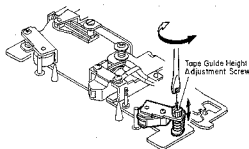


Fig. 4.3  
Serial Nos.: C60501001 - 02838  
(TD-700 & TD-700E)  
C60701001 - 01200  
(TD-700D)

#### 4.3. Playback Head Height Adjustment and Azimuth Alignment

(1) For Serial Nos.: C60502839 - (TD-700 & TD-700E) and C60701201 - (TD-700D)

Refer to Fig. 4.4.

- Connect a VTVM to the Output Jacks.
- Set the Azimuth Fine Tuning Control to the center position referring to 4.2-(1)-(a).
- Load a 1 kHz Track Alignment Tape and play it back.
- Turn the Playback Head Height Adjustment Screw to obtain minimum readings on the VTVM for both channels.
- Load a 15 kHz Azimuth Alignment Tape and play it back.
- Turn the Azimuth Alignment Screw to obtain maximum readings on the VTVM for both channels.
- Repeat above steps (c) through (f) one or two times to obtain optimum performance.

#### (2) For Serial Nos.: C60501001 - 02838 (TD-700 & TD-700E) and C60701001 - 01200 (TD-700D)

Refer to Fig. 4.5.

- Connect a VTVM to the Output Jacks.
- Load a 15 kHz Azimuth Alignment Tape and play it back.
- Turn the Azimuth Alignment Screw to obtain maximum readings on the VTVM for both channels.

Note: Playback Head Height Adjustment Screw is not provided in these Models.

#### 4.4. Torque Adjustment

Refer to Fig. 4.6.

- Load a Torque Gauge for Forward Playback.
- Set the Mobile Tuner/Cassette Deck in Play mode.
- Check whether the playback torque and back tension torque on the Gauge are as follows:  
Playback torque: 35 g-cm -5 to +10 g-cm  
Back tension torque: 10 g-cm  $\pm$  4 g-cm
- If the playback torque is out of the above range, turn the Playback Torque Adjustment Screw with a small flat-blade screwdriver to obtain a satisfactory result.
- Set the Mobile Tuner/Cassette Deck in Stop mode and then load a Torque Gauge for F.F. & REW.
- Set the Mobile Tuner/Cassette Deck in F.F. or Rewind mode and check that the torque is in the range shown below:  
F.F./Rewind torque: 60 g-cm -10 to +40 g-cm (50 to 100 g-cm)

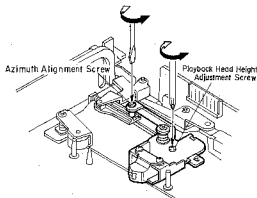


Fig. 4.4  
Serial No.: C60502839 -  
(TD-700 & TD-700E)  
C60701201 - (TD-700D)

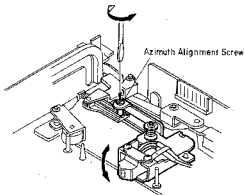
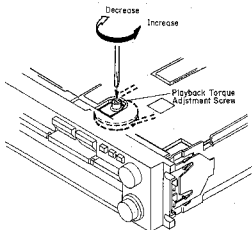


Fig. 4.5  
Serial Nos.: C60501001 - 02838  
(TD-700 & TD-700E)  
C60701001 - 01200  
(TD-700D)



(Bottom View)

Fig. 4.6

## 5. PARTS LOCATION FOR ELECTRICAL ADJUSTMENT

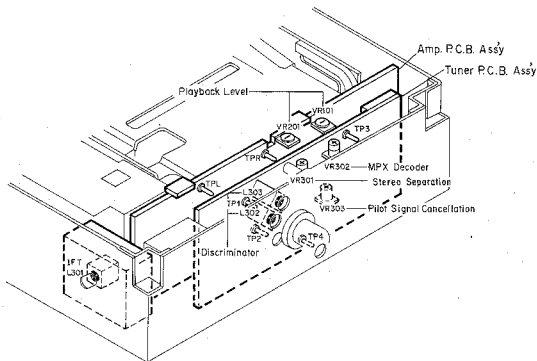


Fig. 5

## 6. ELECTRICAL ADJUSTMENTS

### 6.1. Cassette Deck Section

Note: Electrical adjustment should be performed after mechanical adjustment is completed.

STEP	ITEM	SIGNAL SOURCE	OUTPUT CONNECTION	MODE	ADJUSTMENT	REMARKS
1	Preliminary Step			Volume - Max. Fader, Balance - Center Bass, Mid, Treble - Center		Set the Mobile Tuner/Cassette Deck to the initial mode (see MODE).
2	Playback Level Adjustment	400 Hz Level Tape	VIVM to TPL, TPR on Amp. P.C.B.	Playback Eq. SW ~ 70 $\mu$ s	Amp. P.C.B. VR101 VR201	1. Load a 400 Hz level tape and play it back. 2. Adjust VR101 (VR201) to obtain 350 mV on the VIVM.

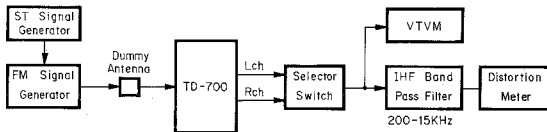


Fig. 6 Connection Diagram for FM Adjustment

## 8.2. Tuner Section (FM Adjustments)

Note: Adjustment should be made in a shielded room in principle.

STEP	ITEM	OUTPUT CONNECTION	MODE	ADJUSTMENT	REMARKS
1	Preliminary Step	See Fig. 6	Mobile Tuner/Cassette Deck Dolby NR - OFF Band Selector - FM Volume - Max. Fader, Balance - Center Bass, Mid, Treble - Center FM Generator Frequency - 98 MHz RF Level - 65 dbf Modulation - 1 kHz (Stereo/Mono) Modulation Ratio - (See REMARKS)		1. Connect necessary instruments to the Mobile Tuner/Cassette Deck referring to connection diagram (Fig. 6). 2. Set the Mobile Tuner/Cassette Deck to the initial mode (see MODE).  Modulation Ratio: <b>Stereo</b> TD-700 (U.S.A. & Canada): Audio 1 kHz 90%, Pilot 19 kHz 10% TD-700 (Australia & Others), TD-700E & TD-700D: Audio 1 kHz 50%, Pilot 19 kHz 10% <b>Mono</b> TD-700 (U.S.A. & Canada): Audio 1 kHz 100% TD-700 (Australia & Others), TD-700E & TD-700D: Audio 1 kHz 60%
2	IFT Adjustment		Mobile Tuner/Cassette Deck Same as above FM Generator Frequency - 98 MHz RF Level - 65 dbf Modulation - Mono	Front-end IFT Coil L301	With decreasing the RF level gradually from 65 dbf to 30 dbf, adjust IFT coil L301 to obtain minimum distortion. (Do not turn other components on the Front-end.)
3	MPX Decoder Adjustment	Frequency Counter to TP3 on Tuner P.C.B.	Mobile Tuner/Cassette Deck Same as above FM Generator Frequency - 98 MHz RF Level - 0 dbf Modulation - Mono	Tuner P.C.B. VR302	1. Cut the RF signal applied to the Mobile Tuner/Cassette Deck. 2. Adjust VR302 to obtain 76 kHz $\pm$ 1 kHz on the frequency counter.
4	Discriminator Adjustment	DC Millivoltmeter between TP1 and TP2 on Tuner P.C.B.	Mobile Tuner/Cassette Deck Same as above FM Generator Frequency - 98 MHz RF Level - 65 dbf Modulation - Mono	Tuner P.C.B. L302, L303	1. Turn L302 (black core) to obtain $\pm$ 50 mV on the DC millivoltmeter. 2. Turn L303 (white core) to obtain minimum distortion on the distortion meter. 3. Repeat above 2 and 3 two or three times.

STEP	ITEM	OUTPUT CONNECTION	MODE	ADJUSTMENT	REMARKS
5	Pilot Signal Cancellation Adjustment		Mobile Tuner/Cassette Deck Same as above FM Generator Frequency - 98 MHz RF Level - 65 dbf Modulation - Stereo	Tuner P.C.B. VR303	1. Set the modulation of the FM Generator as follows: o Cut audio signal 1 kHz o Apply only pilot 19 kHz 10% 2. Adjust VR303 to obtain minimum readings on the VTVM for both channels. The minimum reading should be less than -40 dB.
6	Stereo Separation		Mobile Tuner/Cassette Deck Same as above FM Generator Frequency - 98 MHz RF Level - 65 dbf Modulation - Stereo	Tuner P.C.B. VR301	1. Cut the 1 kHz modulation of R channel of the stereo modulator. Namely, apply 1 kHz signal only to L channel. 2. Adjust VR301 to obtain minimum reading for R channel on the VTVM. 3. Apply 1 kHz signal only to R channel. 4. Adjust VR301 to obtain minimum reading for L channel on the VTVM. 5. Check whether the readings in 2 and 4 are less than -30 dB. If not, repeat 1 through 4 till satisfactory results are obtained.
7	Offset Voltage Check on IC301	DC Millivoltmeter across IC301-14 and GND on Tuner P.C.B.	Mobile Tuner/Cassette Deck Same as above FM Generator Frequency - 98 MHz RF Level - 65 dbf Modulation - Mono		Note: This check will be required only if IF Amp. IC301 (LA1140) on the Tuner P.C.B. Ass'y is replaced with new one. At that time, conduct Step 3 (adjustment of L302 and L303 on Tuner P.C.B.) and then check the following:  1. Set the modulation signal of FM generator to 1 kHz (Mono). 2. Check whether the reading on the DC millivoltmeter is less than 5 mV. 3. If not, replace with another LA1140 and repeat above 1 and 2 after re-adjustment of Step 3.

## 7. MECHANISM ASS'Y AND PARTS LIST

### 7.1. Synthesis

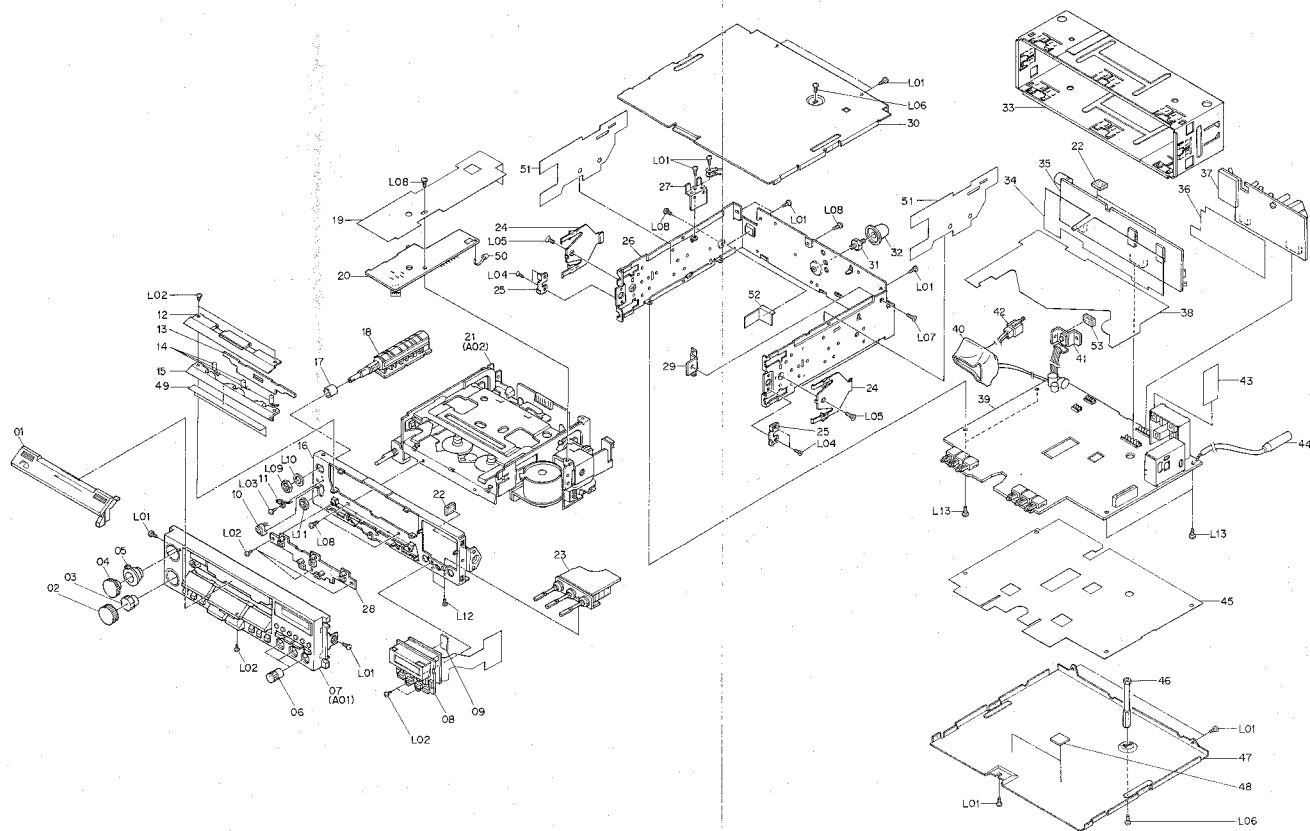


Fig. 7.1



# 7.2. Front Panel Ass'y (A01)

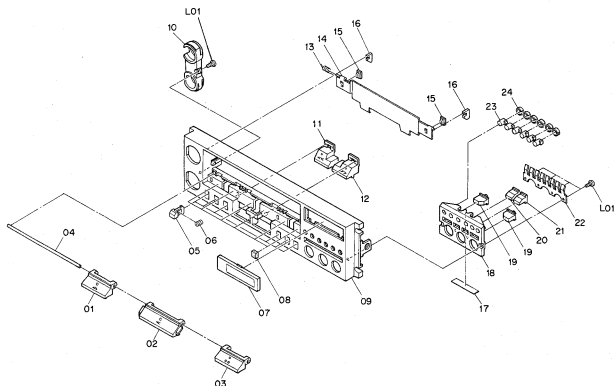


Fig. 7.2

Schematic Ref. No.	Part No.	Description	Q'ty	Schematic Ref. No.	Part No.	Description	Q'ty
A01	HA04775A	Front Panel Ass'y TD-700	1	A01	HA04677C	Front Panel Ass'y TD-700	1
	HA04776A	Front Panel Ass'y TD-700E	1		HA04679C	Front Panel Ass'y TD-700E	1
	HA04778A	Front Panel Ass'y TD-700D Serial Nos.: C60502501 - C60701201	1		HA04681C	Front Panel Ass'y TD-700D Serial Nos.: C60501001 - 02500 C60701001 - 01200	1
01	HA04709A	Eject Button Ass'y	1	01	HA04709A	Eject Button Ass'y	1
02	HA04708A	Play Button Ass'y	1	02	HA04708A	Play Button Ass'y	1
03	HA04710A	Pause Button Ass'y	1	03	HA04710A	Pause Button Ass'y	1
04	0J04868A	Shaft	1	04	0J04868A	Shaft	1
05	HA04788A	Push Button Ass'y	6	05	HA04788A	Push Button Ass'y	6
06	0J04849A	Push Button Spring	6	06	0J04849A	Push Button Spring	6
07	0H04460B	LCD Lens	1	07	0H04460A	LCD Lens	1
08	0J04878A	Cushion	6	08	0J04878A	Cushion	6
09	0H04472C	Front Panel	1	09	0H04472C	Front Panel	1
10	0H04462B	Illuminator C	1	10	0H04462B	Illuminator C	1
11	HA04713A	FF Button Ass'y	1	11	HA04713A	FF Button Ass'y	1
12	HA04714A	Rewind Button Ass'y	1	12	HA04714A	Rewind Button Ass'y	1
13	0J04850B	Spring	1	13	0J04850B	Spring	1
14	0H04491C	Tape Slot Cover TD-700	1	14	0H04491C	Tape Slot Cover TD-700	1
	0H04503C	Tape Slot Cover TD-700E	1		0H04503C	Tape Slot Cover TD-700E	1
	0H04508C	Tape Slot Cover TD-700D	1		0H04508C	Tape Slot Cover TD-700D	1
15	0H04463C	Tape Slot Cover Protector	2	15	0H04463C	Tape Slot Cover Protector	2
16	0J04902A	Guide	2	16	0J04902A	Guide	2
17	0J04891A	Sheet	1	17	0J04891A	Sheet	1
18	0H04469B	Illuminator D	1	18	0H04469A	Illuminator D	1
19	0H04483A	Up/Down Button	1	19	0H04483A	Up/Down Button	1
20	0H04482A	Scan Button	1	20	0H04482A	Scan Button	1
21	0H04480A	Memory Button	1	21	0H04480A	Memory Button	1
22	0J04848A	Button Spring	1	22	0J04848A	Button Spring	1
23	0H04473A	Station Button	1	23	0H04473A	Station Button	1
24	0J04846B	Reflector	6	24	0J04846B	Reflector	6
L01	0E00961A	BT2x5 @ Binding	5	L01	0E00961A	BT2x5 @ Binding	5



### 7.3. Transport Mechanism Ass'y (A02)

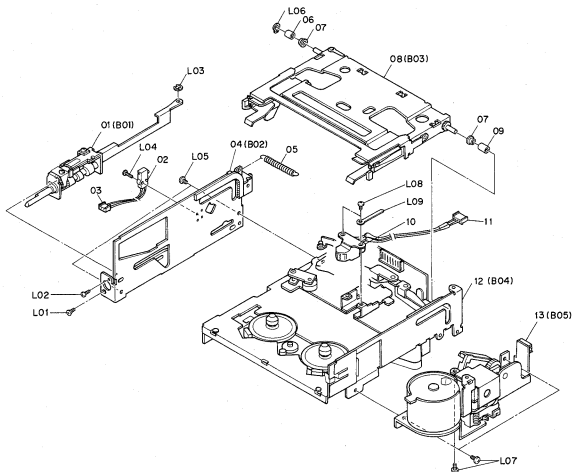


Fig. 7.3

Schematic Ref. No.	Part No.	Description	Q'ty	Schematic Ref. No.	Part No.	Description	Q'ty
A02	CA08716A	Transport Mechanism Ass'y Serial No.: C60503399 - C60701251 -	1	A02	CA08661B	Transport Mechanism Ass'y Serial Nos.: C60501001 - 03398 C60701001 - 01250	1
01	CA08687A	Azimuth Controller Ass'y	1	01	CA08687A	Azimuth Controller Ass'y	1
02	0B70028A	Eject Switch	1	02	0B70028A	Eject Switch	1
03	0B82299B	2P Coupler	1	03	0B82299B	2P Coupler	1
04	CA08656A	Side Chassis Ass'y	1	04	CA08656A	Side Chassis Ass'y	1
05	OC08868A	Spring A	1	05	OC08868A	Spring A	1
06	OC08799A	Guide Collar B	1	06	OC08799A	Guide Collar B	1
07	OC08797A	Guide Roller A	2	07	OC08797A	Guide Roller A	2
08	CA08665A	Cassette Holder Ass'y	1	08	CA08665A	Cassette Holder Ass'y	1
09	OC08798A	Guide Collar C	1	09	OC08798A	Guide Collar C	1
10	GA02203B	P2C-3L Playback Head	1	10	GA02203B	P2C-3L Playback Head	1
11	0B82302A	4P-H Connector	1	11	0B82302A	4P-H Connector	1
12	CA08717A	Transport Mechanism Sub Ass'y	1	12	CA08663A	Transport Mechanism Sub Ass'y	1
13	CA08667A	Loading Mechanism Ass'y	1	13	CA08667A	Loading Mechanism Ass'y	1
L01	OE03189A	M2x3 @ Countersunk (Black Chromate)	1	L01	OE03189A	M2x3 @ Countersunk (Black Chromate)	1
L02	OE03216A	M1.4x2.5 @ Pan (Black Chromate)	1	L02	OE03216A	M1.4x2.5 @ Pan (Black Chromate)	1
L03	OE00222A	E-Ring 2mm	1	L03	OE00222A	E-Ring 2mm	1
L04	OE03185A	M1.7x6 @ Pan	1	L04	OE03185A	M1.7x6 @ Pan	1
L05	OE03186A	M2.6x2.8 @ Pan (Black Chromate)	2	L05	OE03186A	M2.6x2.8 @ Pan (Black Chromate)	2
L06	OE00839A	Grip 2.5mm	1	L06	OE00839A	Grip 2.5mm	1
L07	OE00120A	M2.6x3 @ Pan (Black Chromate)	3	L07	OE00120A	M2.6x3 @ Pan (Black Chromate)	3
L08	OE00783A	M2x3 @ Pan (Black Chromate)	2	L08	OE00783A	M2x3 @ Pan (Black Chromate)	2
L09	OC08858A	Wire Clamper	1	L09	OC08858A	Wire Clamper	1

#### 7.4. Azimuth Controller Ass'y (B01)

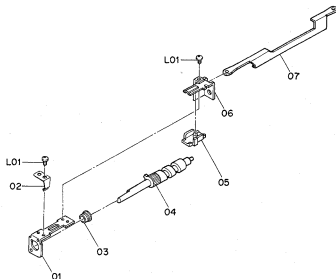


Fig. 7.4

#### 7.5. Side Chassis Ass'y (B02)

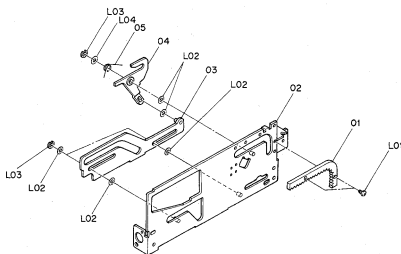


Fig. 7.5

Schematic Ref. No.	Part No.	Description	Q'ty	Schematic Ref. No.	Part No.	Description	Q'ty
B01	CA08687A	Azimuth Controller Ass'y Serial No.: C60501001 - C60701001 -	1	B02	CA08686A	Side Chassis Ass'y Serial No.: C60501001 - C60701001 -	1
01	OC08850B	Azimuth Cam Holder A	1	01	OC08828B	Rack Rail L	1
02	OC08856A	Plate Spring	1	02	CA08685A	Side Chassis L Ass'y	1
03	OC08896A	Cam Holder	1	03	CA08643B	G-Shaped Plate Ass'y	1
04	OC08777B	Azimuth Cam B	1	04	CA08644A	Slide Arm Ass'y	1
05	OC08854A	Joint Pin	1	05	OC08876A	Slide Arm Spring	1
06	OC08851B	Azimuth Cam Holder B	1	L01	OE03183A	M1.7x2.2 ♂ Pan (Black Chromate)	2
07	OC08853A	Joint Bar	1	L02	OE03062A	Mylar Washer 2.6mm 2.6x5x0.25	6
L01	OE00922A	M2x3 ♂ Pan (Black Chromate)	2	L03	OE00222A	E-Ring 2mm	3
				L04	OE03180A	Mylar Washer 2.6mm 2.6x6x0.25	1

# 7.6. Cassette Holder Ass'y (B03)

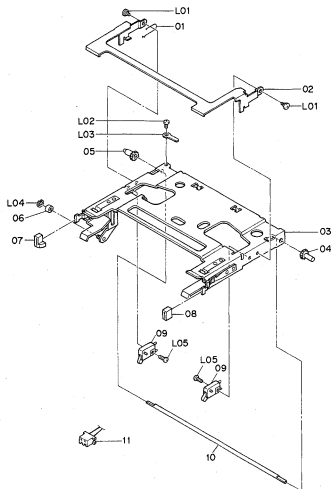


Fig. 7.6

Schematic Ref. No.	Part No.	Description	Qty
B03	CA08665A	Cassette Holder Ass'y Serial No.: C60501001 - C60701001 -	1
01	OC08890C	Plate Spring	1
02	OC08860F	Plate	1
03	CA08674D	Cassette Holder Sub Ass'y	1
04	OC08847A	Pinion Gear R	1
05	OC08846A	Pinion Gear L	1
06	OC08786A	Roller 1.5x4x2.5	1
07	OC08888B	Cassette Guide L	1
08	OC08887B	Cassette Guide R	1
09	OB70001A	Leaf Switch	2
10	OC08800B	Pinion Shaft	1
11	OB82301A	2P Coupler	1
L01	OE03208A	M1.4x2.5 @	2
L02	OE03190A	ST1.7x3 @ Pan (Black Chromate)	1
L03	OE00905A	Earth Lug 2mm	1
L04	OE00165A	E-Ring 1.2mm	1
L05	OE03184A	M1.7x5.5 @ Pan (Black Chromate)	2

# 7.7. Transport Mechanism Sub Ass'y (B04)

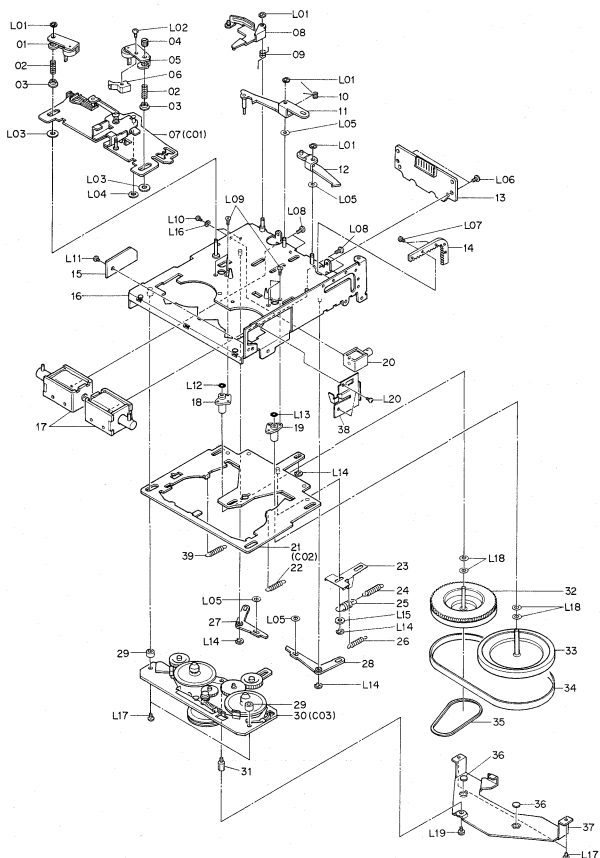


Fig. 7.7

Schematic Ref. No.	Part No.	Description	Q'ty	Schematic Ref. No.	Part No.	Description	Q'ty
B04	CA08171A	Transport Mechanism Sub Assy Serial No.: C60503399 - C60701251 -	1	B04	CA08663A	Transport Mechanism Sub Assy Serial Nos.: C60501001 - 03398 C60701001 - 01250	1
01	CA08617B	Take-up Pressure Roller Arm Sub Assy	1	01	CA08617B	Take-up Pressure Roller Arm Sub Assy	1
02	OC08878A	Pressure Roller Adjust Spring	2	02	OC08878A	Pressure Roller Adjust Spring	2
03	OC08689A	Roller Arm Sleeve	2	03	OC08689A	Roller Arm Sleeve	2
04	OC08694A	Pressure Roller Height Adjust Nut	1	04	OC08694A	Pressure Roller Height Adjust Nut	1
05	CA08618A	Supply Pressure Roller Arm Sub Assy	1	05	CA08618A	Supply Pressure Roller Arm Sub Assy	1
06	OC08756A	Tape Guide	1	06	OC08756A	Tape Guide	1
07	CA08679A	Head Slider Assy	1	07	CA08679A	Head Slider Assy	1
08	CA08656A	Azimuth Arm Assy	1	08	CA08656A	Azimuth Arm Assy	1
09	OC08891A	Azimuth Arm Spring	1	09	OC08891A	Azimuth Arm Spring	1
10	OC08867A	Lock Plate Spring	1	10	OC08867A	Lock Plate Spring	1
11	CA08622D	Play Lock Plate Assy	1	11	CA08622D	Play Lock Plate Assy	1
12	CA08623C	Rew Lock Plate Assy	1	12	CA08623C	Rew Lock Plate Assy	1
13	BA05430A	Solenoid P.C.B. Assy	1	13	BA05430A	Solenoid P.C.B. Assy	1
14	OC08829A	Rack Gear R	1	14	OC08829A	Rack Gear R	1
15	OC08817B	Guide Plate	1	15	OC08817B	Guide Plate	1
16	CA08657F	Mechanism Chassis Assy	1	16	CA08657F	Mechanism Chassis Assy	1
17	OB90027B	Main Solenoid G-825	2	17	OB90027B	Main Solenoid G-825	2
18	CA08629A	Takeup Flange Metal Assy	1	18	CA08629A	Takeup Flange Metal Assy	1
19	CA08630A	Supply Flange Metal Assy	1	19	CA08630A	Supply Flange Metal Assy	1
20	OB90028B	Lock Solenoid G-413	1	20	OB90028B	Lock Solenoid G-413	1
21	CA08678A	Master Plate Assy	1	21	CA08678A	Master Plate Assy	1
22	OC08864A	Pressure Roller Spring	1	22	OC08864A	Pressure Roller Spring	1
23	OC08679D	Centering Plate	1	23	OC08679D	Centering Plate	1
24	OC08881A	Control Plate Spring	1	24	OC08881A	Control Plate Spring	1
25	OC08880B	Head Base Spring	1	25	OC08880B	Head Base Spring	1
26	OC08877A	Centering Spring	1	26	OC08877A	Centering Spring	1
27	CA08612B	Solenoid Arm L Assy	1	27	CA08612B	Solenoid Arm L Assy	1
28	CA08613B	Solenoid Arm R Assy	1	28	CA08613B	Solenoid Arm R Assy	1
29	OC08703A	Slide Base Collar	2	29	OC08703A	Slide Base Collar	2
30	CA08719A	Reel Mechanism Assy	1	30	CA08719A	Reel Mechanism Assy	1
31	OC08807A	Thrust Stud	1	31	OC08807A	Thrust Stud	1
32	CA08609C	Supply Flywheel Assy	1	32	CA08609C	Supply Flywheel Assy	1
33	CA08610B	Takeup Flywheel Assy	1	33	CA08610B	Takeup Flywheel Assy	1
34	OC08781A	Captain Belt	1	34	OC08781A	Captain Belt	1
35	OC08783A	V. Pulley Belt	1	35	OC08783A	V. Pulley Belt	1
36	OC08692A	Thrust Plate	2	36	OC08692A	Thrust Plate	2
37	OC08752B	Flywheel Plate B	1	37	OC08752B	Flywheel Plate B	1
38	OJ04901B	Cover Plate	1	38	OJ04901B	Cover Plate	1
39	OC08998A	Take-up Pressure Roller Spring	1	39	OC08998A	Take-up Pressure Roller Spring	1
L01	OE00042A	E-Ring 1.5mm	4	L01	OE00042A	E-Ring 1.5mm	4
L02	OE00841A	BT2x4 @ Pan	1	L02	OE00841A	BT2x4 @ Pan	1
L03	OC08826C	Slide Washer A	2	L03	OC08826C	Slide Washer A	2
L04	OC08827B	Slide Washer B	1	L04	OC08827B	Slide Washer B	1
L05	OE03196A	Mylar Washer 2.6mm 2.6x5x0.125	4	L05	OE03196A	Mylar Washer 2.6mm 2.6x5x0.125	4
L06	OE03197A	M2.6x4 @ Pan (Black Chromate)	2	L06	OE03197A	M2.6x4 @ Pan (Black Chromate)	2
L07	OE03183A	M1.7x2.2 @ Pan (Black Chromate)	2	L07	OE03183A	M1.7x2.2 @ Pan (Black Chromate)	2
L08	OE03241A	M3x4 @ Binding	4	L08	OE03241A	M3x4 @ Binding	4
L09	OE03189A	M2x3 @ Countersunk (Black Chromate)	6	L09	OE03189A	M2x3 @ Countersunk (Black Chromate)	6
L10	OE03246A	M1.6x3 @ Pan (Black Chromate)	2	L10	OE03246A	M1.6x3 @ Pan (Black Chromate)	2
L11	OE03186A	M2.6x2.8 @ Pan (Black Chromate)	1	L11	OE03186A	M2.6x2.8 @ Pan (Black Chromate)	1
L12	OE03200A	Nylon Washer 2mm 2.0x3.5x0.13	1	L12	OE03200A	Nylon Washer 2mm 2.0x3.5x0.13	1
L13	OE03179A	Nylon Washer 2.3mm 2.3x3.5x0.13	1	L13	OE03179A	Nylon Washer 2.3mm 2.3x3.5x0.13	1
L14	OE00222A	E-Ring 2mm	4	L14	OE00222A	E-Ring 2mm	4
L15	OE03206A	Nylon Washer 3.1x6x0.5	1	L15	OE03206A	Nylon Washer 3.1x6x0.5	1
L16	OE03199A	Washer 1.8x3.8x0.3 (Nickel)	2	L16	OE03199A	Washer 1.8x3.8x0.3 (Nickel)	2
L17	OE00120A	M2.6x3 @ Pan	4	L17	OE00120A	M2.6x3 @ Pan	4
L18	OE03062A	Mylar Washer 2.6mm 2.6x5x0.25	4	L18	OE03062A	Mylar Washer 2.6mm 2.6x5x0.25	4
L19	OE03242A	M2.6x3 Hex. Socket Head	1	L19	OE03242A	M2.6x3 Hex. Socket Head	1
L20	OE03243A	M2x2.5 @ Pan	2	L20	OE03243A	M2x2.5 @ Pan	2

# 7.8. Loading Mechanism Assy (B05)

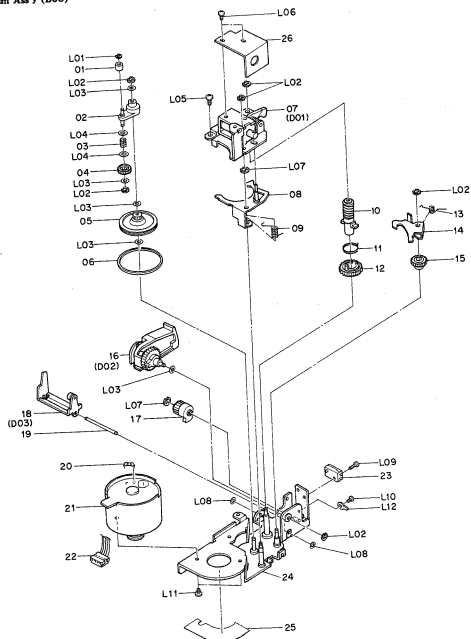


Fig. 7.8

Schematic Ref. No.	Part No.	Description	Qty
B05	CA08667A	Loading Mechanism Ass'y Serial No.: C60501001 - C60701001 -	1
01	OC08812A	Idler Roller L	1
02	CA08655B	P Arm L Ass'y	1
03	OC08872A	Function Spring	1
04	OC08840D	Idle Gear L	1
05	OC08842B	Loading Pulley	1
06	OC08784B	Loading Belt	1
07	CA08677A	Solenoid Plate Ass'y	1
08	CA08654B	Eject Arm Ass'y	1
09	OC08874A	Eject Arm Spring	1
10	OC08844C	Worm Gear	1
11	OC08873B	Flexible Spring	1
12	OC08839B	Loading Gear A	1
13	OC08871A	Loading Arm Spring C	1
14	OC08831B	Loading Arm C	1
15	OC08841B	Eject Gear	1
16	CA08675A	Loading Arm Ass'y	1
17	OC08789B	Head Base Cam Gear	1
18	CA08676A	Head Base Arm Ass'y	1
19	OC08793A	Head Base Arm Shaft	1
20	0B09629A	Carbon Resistor 10K 1/6W J	1
21	CA08652B	Main Motor Ass'y	1
22	0B82306A	4P-H Connector	1
23	0B70001A	Loading Switch	1
24	CA08653C	Motor Chassis Ass'y	1
25	0J04899A	Tone Volume Insulator	1
26	OC08893B	Solenoid Protector	1
L01	OE03182A	E-Ring 0.8mm	1
L02	OE00042A	E-Ring 1.5mm	6
L03	OE03061A	Mylar Washer 2.1mm 2.1x4x0.25	5
L04	OE03209A	Mylar Washer 3.1mm 3.1x4.9x0.125	2
L05	OE00226A	M2.6x4 @ Pan	1
L06	OE00922A	M2x3 @ Pan	2
L07	OE00222A	E-Ring 2mm	2
L08	OE03181A	Mylar Washer 1.6mm 1.6x3.5x0.25	2
L09	OE03185A	M1.7x6 @ Pan (Black Chromate)	1
L10	OE03183A	M1.7x2.2 @ Pan (Black Chromate)	1
L11	OE03186A	M2.6x2.8 @ Pan (Black Chromate)	2
L12	OE00905A	Earth Lug B	1
C01	CA08679A	Head Slider Ass'y Serial No.: C60501001 - C60701001 -	1
01	OC08879A	Head Hold Spring	1
02	OC08688B	Azimuth Screw	1
03	OC08749B	Head Mount Plate	1
04	OC08466A	Slide Cam Spring	1
05	OC08708A	Azimuth Adjust Plate	1
06	CA08635D	Head Base Ass'y	1
L01	OE00042A	E-Ring 1.5mm	1
L02	OE03191A	Washer 2.5mm 2.5x6.5x0.5	2
L03	OE03272A	PL1.7x3.5 @ Pan	1
C02	CA08678A	Master Plate Ass'y Serial No.: C60501001 - C60701001 -	1
01	CA08632E	Control Plate Ass'y	1
02	CA08615A	RF Selector Arm R Ass'y	1
03	CA08614A	FR Selector Arm L Ass'y	1
04	OC08705A	Drive Pin	1
05	OC08678A	FR Selector Plate	1
06	OC08882A	FF Limiter Spring	1
L01	OE00222A	E-Ring 2mm	2
L02	OE03196A	Mylar Washer 2.6mm 2.6x5x0.125	2
L03	OE00042A	E-Ring 1.5mm	1

7.9. Head Slider Ass'y (C01)

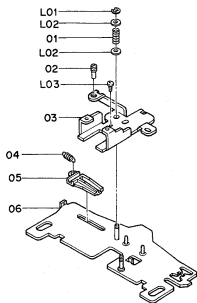


Fig. 7.9

7.10. Master Plate Ass'y (C02)

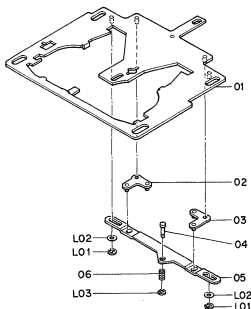


Fig. 7.10

7.11. Reel Mechanism Ass'y (C03)

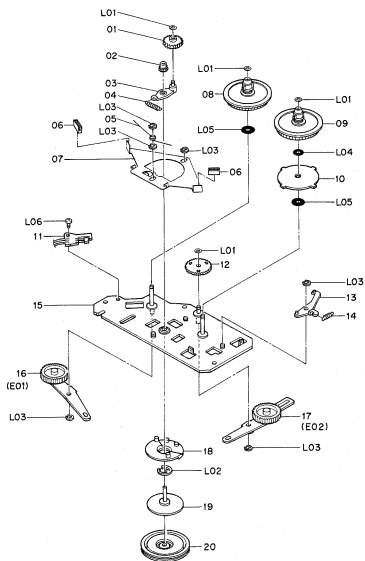


Fig. 7.11

7.12. Solenoid Plate Ass'y (D01)

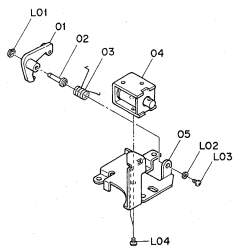


Fig. 7.12

7.13. Loading Arm Ass'y (D02)

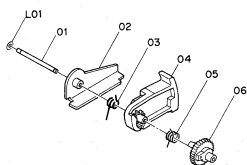


Fig. 7.13

7.14. Head Base Arm Ass'y (D03)

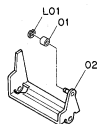


Fig. 7.14



## 7.15. FF Arm Ass'y (E01)

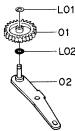


Fig. 7.15

## 7.16. Rewind Arm Ass'y (E02)

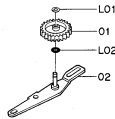


Fig. 7.16

Schematic Ref. No.	Part No.	Description	Q'ty	Schematic Ref. No.	Part No.	Description	Q'ty
C03	CA08718A	Reel Mechanism Ass'y Serial No.: C60503399 - C60701261 -	1	D01	CA08677A	Solenoid Plate Ass'y Serial No.: C60501001 - C60701001 -	1
01	OC08727A	Idler Gear	1	01	OC08834B	Stop Arm L	1
02	OC08676B	Pinion Gear	1	02	OC08838A	Stop Arm Shaft	1
03	CA08627B	Pivot Suspension Arm Ass'y	1	03	OC08875A	Stop Arm Spring	1
04	OC08866A	Pivot Suspension Arm Spring	1	04	0B90022A	Eject Solenoid	1
05	OC08864B	Brake Spring	1	05	OC08833A	Solenoid Plate	1
06	OC08690A	Brake Shoe	2	L01	0E00222A	E-Ring 2mm	1
07	OC08723B	RB Plate	1	L02	0E03199A	Washer 1.8mm	1
08	CA08639F	Take-up Reel Hub Ass'y	1	L03	0E03183A	M1.7x2.2 @ Fan (Black Chromate)	1
09	CA08641F	Supply Reel Hub Ass'y	1	L04	0E00922A	M2x3 @ Fan (Black Chromate)	2
10	OC08742A	Back Tension Disc	1	D02	CA08675A	Loading Arm Ass'y Serial No.: C60501001 - C60701001 -	1
11	BA05614B	Shut-off P.C.B. Ass'y	1				
12	OC08723B	Idler Gear	1	01	OC08795B	Main Shaft L	1
13	OC08709A	Back Tension Arm	1	02	CA08645A	Loading Arm B Ass'y	1
14	OC08865A	Back Tension Arm Spring	1	03	OC08870A	Loading Arm Spring B	1
15	CA08634D	Reel Chassis Ass'y	1	04	OC08801B	Loading Arm A	1
16	CA08672A	FF Arm Ass'y	1	05	OC08869C	Loading Arm Spring A	1
17	CA08671A	Rewind Arm Ass'y	1	06	OC08791B	Loading Gear B	1
18	OC08778A	FR Drum	1	L01	0E03181A	Mylar Washer 1.6mm 1.6x3.5x0.25	1
19	CA08631A	Clutch Disc Ass'y	1				
20	CA08673A	Magnet Clutch Pulley Ass'y	1	D03	CA08676A	Head Base Arm Ass'y Serial No.: C60501001 - C60701001 -	1
L01	0E03181A	Mylar Washer 1.6mm 1.6x3.5x0.25	4	01	OC08786A	Roller 1.5x4x2.5	1
L02	0E00104A	E-Ring 6mm	1	02	CA08642B	Head Base Arm Sub Ass'y	1
L03	0E00042A	E-Ring 1.5mm	6	L01	0E00165A	E-Ring 1.2mm	1
L04	0E03195A	Nylon Washer 3.6mm 3.6x6x0.25	1	E01	CA08672A	FF Arm Ass'y Serial No.: C60501001 - C60701001 -	1
L05	0E03193A	Nylon Washer 2.1mm 2.1x7x0.25	2	01	OC08731A	F Idler A	1
L06	0E00922A	M2x3 @ Fan	1	02	CA08626C	FF Arm Sub Ass'y	1
C03	CA08670A	Reel Mechanism Ass'y Serial Nos.: C60501001 - 03398 C60701001 - 01250	1	L01	0E03181A	Mylar Washer 1.6mm 1.6x3.5x0.25	1
01	OC08727A	Idler Gear	1	L02	0E03187A	Nylon Washer FT20 2.1x4.0x0.25	1
02	OC08676B	Pinion Gear	1	E02	CA08671A	Rewind Arm Ass'y Serial No.: C60501001 - C60701001 -	1
03	CA08627B	Pivot Suspension Arm Ass'y	1	01	OC08731A	F Idler A	1
04	OC08866A	Pivot Suspension Arm Spring	1	02	CA08624B	Rewind Arm Sub Ass'y	1
05	OC08864B	Brake Spring	1	L01	0E03181A	Mylar Washer 1.6mm 1.6x3.5x0.25	1
06	OC08690A	Brake Shoe	2	L02	0E03187A	Nylon Washer FT20 2.1x4.0x0.25	1
07	OC08723B	RB Plate	1				
08	CA08639F	Take-up Reel Hub Ass'y	1				
09	CA08641F	Supply Reel Hub Ass'y	1				
10	OC08742A	Back Tension Disc	1				
11	BA05614B	Shut-off P.C.B. Ass'y	1				
12	OC08723B	Idler Gear	1				
13	OC08709A	Back Tension Arm	1				
14	OC08865A	Back Tension Arm Spring	1				
15	CA08634D	Reel Chassis Ass'y	1				
16	CA08672A	FF Arm Ass'y	1				
17	CA08671A	Rewind Arm Ass'y	1				
18	OC08778A	FR Drum	1				
19	CA08631A	Clutch Disc Ass'y	1				
20	CA08673A	Magnet Clutch Pulley Ass'y	1				
L01	0E03181A	Mylar Washer 1.6mm 1.6x3.5x0.25	4				
L02	0E00104A	E-Ring 6mm	1				
L03	0E00042A	E-Ring 1.5mm	6				
L04	0E03195A	Nylon Washer 3.6mm 3.6x6x0.25	1				
L05	0E03193A	Nylon Washer 2.1mm 2.1x7x0.25	2				
L06	0E00922A	M2x3 @ Fan	1				

## 8. MOUNTING DIAGRAMS AND PARTS LIST

Notes: 1. Mounting diagram shows a dip side view of the printed circuit board.

2. Diode is MA221 or RLS-73 unless otherwise specified.

3. Following transistors are interchangeable with each other.

2SC945, 2SC536SP, 2SC2458, 2SC2785

4. Abbreviation for part name:

TR — Transistor, SID — Silicon Diode, ZD — Zener Diode

RK — Carbon Resistor, RM — Metal Film Resistor, RF — Fail Safe Type Resistor

CE — Electrolytic Capacitor, CM — Mylar Capacitor, CC — Ceramic Capacitor, CP — PP Capacitor,

CT — Tantalum Capacitor

### 8.1. Line Filter P.C.B. Ass'y

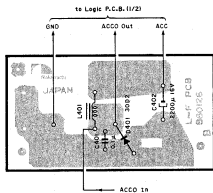


Fig. 8.1

### 8.2. Transistor P.C.B. Ass'y



Fig. 8.2

### 8.3. Shut-off P.C.B. Ass'y



Fig. 8.3

### 8.4. Lamp P.C.B. Ass'y

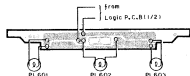


Fig. 8.4

### 8.5. Solenoid P.C.B. Ass'y

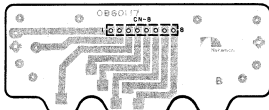


Fig. 8.5

Schematic Ref. No.	Part No.	Description
	BA05501A	Line Filter P.C.B. Ass'y
D401	OB60126B	Line Filter P.C.B.
L401	OB6458A	SID 30D-2
C401	OB6707A	Choke Coil
C402	OB09292A	CC 0.1μ 50V Z
	OB09894A	CE 2200μ 16V
	OB8066B	GND Cable (1)
	OB8066A	ACC Cable (1)
	OB90019A	SK Binder (2)
	BA05497A	Transistor P.C.B. Ass'y
Q405	OB60123A	Transistor P.C.B.
FC1	OB66303A	TR 2SB772 (P.Q)
	OB82346A	Flat Cable 3P 120mm
	OJ04855B	Wire Holder (1)
	OE00507A	Nut Hex. M3 (1)
	OE00510A	M3x8 φ Pan (2A) (1)
	BA05614B	Shut-off P.C.B. Ass'y
		Serial No.: C60503399 - C60701261 -
IC604	OB60103B	Shut-off P.C.B.
CN9	OB11062A	Hall IC DN6838
	OB82358A	3P-H Connector 50mm
	BA05429A	Shut-off P.C.B. Ass'y
		Serial No.: C60501001 - 03398 C60701001 - 01250
IC604	OB60103A	Shut-off P.C.B.
CP3	OB11062A	Hall IC DN6838
	OB82297B	3P Coupler
	BA05484A	Lamp P.C.B. Ass'y
PL601,602	OB60121A	Lamp P.C.B.
603	OB90030A	Lamp 65mA 14V
	OH04670B	Illuminator B (1)
	BA05430A	Solenoid P.C.B. Ass'y
CN8	OB60117B	Solenoid P.C.B.
	OB81042A	8P-S Post

### 8.6. Buffer Amp. P.C.B. Ass'y

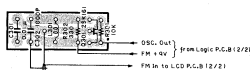


Fig. 8.6

### 8.7. Control P.C.B. Ass'y

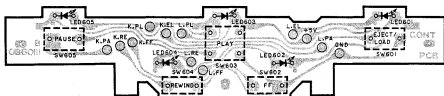


Fig. 8.7

### 8.8. Volume P.C.B. Ass'y

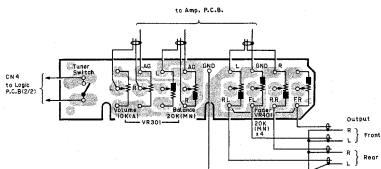


Fig. 8.8

Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description
	BA05516A	Buffer Amp. P.C.B. Ass'y (except for Japan)		BA05422A	Volume P.C.B. Ass'y TD-700 & TD-700E
				BA05466A	Volume P.C.B. Ass'y TD-700D
Q301	OB60132A	Buffer Amp. P.C.B.		OB60115A	Volume P.C.B.
L301	OB06461A	FET 2SK161		OB30011A	Volume 12mm
R301A	OB51198A	RF Coil	CN4	OB2205A	2P-H Connector
R302	OB09701A	RK 10K 1/6W J		OB81269B	Pin Jack Cable BLK TD-700 & TD-700E (1)
C301	OB09665A	RK 330 1/6W J			
C302	OB41019A	CC 0.01u 25V		OB81280A	Pin Jack Cable GRAY TD-700 & TD-700E (1)
	OB41007A	CC 1000P 25V			
	BA05415A	Control P.C.B. Ass'y		OB81275B	Socket 7P TD-700D (1)
	OB60111B	Control P.C.B.			
LED601-605	OB12215A	LED SLP202C Green		OE03123A	Earth Lug M2.6 (1)
SW601,602	OB70020A	Tact Switch		OB80078B	Shield Wire A (Yellow) (1)
604,605				OB80079B	Shield Wire B (Red) (1)
SW603	OB70032A	Tact Switch			
	OJ04845A	Reflector A (5)		OB80080B	Shield Wire C (Black) (1)

### 8.9. Tone Volume P.C.B. Ass'y

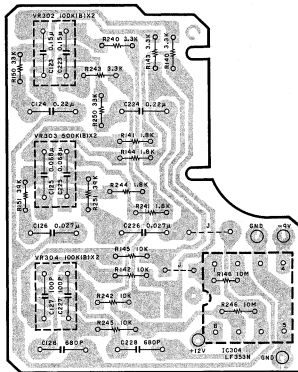


Fig. 8.9.1 C60503551 - (TD-700 & TD-700E)  
C60701301 - (TD-700D)

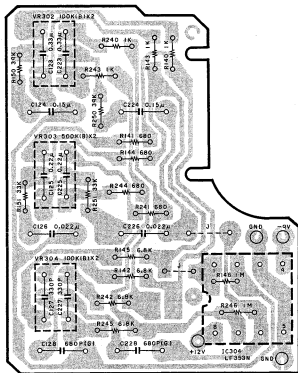


Fig. 8.9.2 C60501001 - 03550 (TD-700 & TD-700E)  
C60701001 - 01300 (TD-700D)

Schematic Ref. No.	Part No.	Description
	<b>BA05613A</b>	<b>Tone Volume P.C.B. Assy</b> <b>Serial No.:</b> C605010561 - C60701301 -
IC304	0B60114C 0B11155A	<b>Tone Volume P.C.B. IC</b> LF353N (Low Noise)
VR302,304	0B30012A	VR 100K (B)x2
R140,143	0B23085A	VR 500K (B)x2
R240,243		RK 3K 1K 1/8W J
R141,144	0B23097A	RK 1.8K 1/8W J
R241,244		
R142,145	0B23097A	RK 10K 1/8W J
R242,245		
R146,246	0B25001A	RK 10M 1/8W J
R150,250	0B23109A	RK 33K 1/8W J
R151,251	0B23111A	RK 39K 1/8W J
C123,223	0B41176A	CM 0.15 $\mu$ 50V J
C124,224	0B41176A	CM 0.22 $\mu$ 50V J
C125,225	0B41373A	CM 0.068 $\mu$ 50V J
C126,226	0B09045A	CM 0.027 $\mu$ 50V J
C127,227	0B41386A	CP 100P 100V J
C128,228	0B09235A	CP 680P 100V J
CP1	0B82383A	6P Coupler
CP2	0B82381A	2P Coupler
	0J04854A	Tone Volume Holder (1)
	<b>BA05421A</b>	<b>Tone Volume P.C.B. Assy</b> <b>Serial Nos.:</b> C60501001 - 03550 C60701001 - 01300
IC304	0B60114C 0B11032A	<b>Tone Volume P.C.B. IC</b> LF353N
VR302,304	0B30012A	VR 100K (B)x2
VR303	0B30013A	VR 500K (B)x2
R140,143	0B23073A	RK 1K 1/8W J
R240,243		
R141,144	0B23069A	RK 680 1/8W J
R241,244		
R142,145	0B23093A	RK 6.8K 1/8W J
R242,245		
R146,246	0B23145A	RK 1M 1/8W J
R150,250	0B23111A	RK 39K 1/8W J
R151,251	0B23109A	RK 33K 1/8W J
C123,223	0B41177A	CM 0.33 $\mu$ 50V J
C124,224	0B41176A	CM 0.15 $\mu$ 50V J
C125,225	0B41176A	CM 0.22 $\mu$ 50V J
C126,226	0B05582A	CM 0.022 $\mu$ 50V J
C127,227	0B41213A	CP 330P 100V J
C128,228	0B41121A	CP 680P 100V G
CP1	0B82292A	6P Coupler
CP2	0B82294B	2P Coupler
	0B900021A	Band EG-9 (1)
	0J04854A	Tone Volume Holder (1)



## (U.S.A. &amp; Canada)

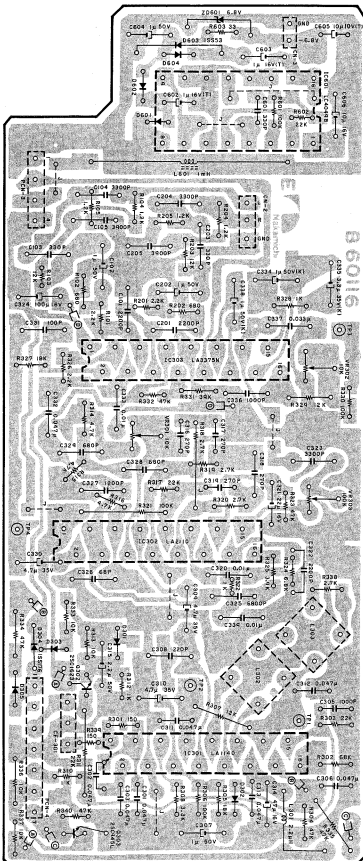


Fig. 8.11.1

Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description
	BA05424B	Tuner P.C.B. Ass'y TD-700 (U.S.A. & Canada)	C326	OB41191A	C 68P 100V J
			C327	OB05687A	CM 1200P 50V J
			C328,329	OB05571A	CM 680P 50V J
			C331	OB41386A	CP 100P 50V J
	OB60116E	Tuner P.C.B.	C332	OB05796A	CM 0.047 $\mu$ 50V J
IC301	OB06412A	IC LA1140	C334,338	OB40263A	CE 1 $\mu$ 50V K
IC302	OB06414A	IC LA2110	C335	OB40264A	CE 3.3 $\mu$ 35V K
IC303	OB06415B	IC LA3375N	C336	OB41225A	CP 1000P 100V J
IC601	OB11066A	IC LC4049B	C337	OB05583A	CM 0.03 $\mu$ 50V J
Q302	OB14022A	TR 2SC1623	C601	OB43055A	CC 330P 50V K
Q303	OB01872A	TR 2SC9451 (P-Q)	C602	OB43025A	CT 1 $\mu$ 16V
ZD601	OB06241A	ZD 6.8V RD6.8EB2	C605	OB43020A	CT 10 $\mu$ 10V
D301,302	OB13064A	SID MA221	C606	OB40162A	CE 10 $\mu$ 16V
303,601			CF301	OB41076A	Ceramic Filter
D304	OB06398A	SID 1SS176	CN3	OB81036A	SFE10.7MS3GKY
D305,604	OB13003A	SID RLS-73	PCN2	OB81283A	2P-S Post (1)
D603	OB06181A	SID 1SS53	PCN3	OB82288A	3P-S Post (1)
L301	OB51106A	Micro Coil 2.2 $\mu$ H	PCN4	OB82289A	4P Connector (1)
L302	OB51142A	Det. Coil 57-1291-01		OE00764A	TP Connector (1)
L303	OB06712A	Det Coil 57-1057-01		OJ04869A	M2.6x6 @ Pan (2A)
L601	OB51040A	Micro Coil 1mH			(1)
VR301,302	OB32035A	Potentiometer 10K		OB81117A	P.C.B. Holder Stud
VR303	OB32038A	Potentiometer 100K		OJ04871B	Contact Pin 1P (4)
R101,201	OB23081A	RK 2.2K 1/8W J			Shield Case (1)
326					
R102,202	OB23069A	RK 680 1/8W J			
R103,203	OB23099A	RK 12K 1/8W J			
R104,105	OB23075A	RK 1.2K 1/8W J			
204,205					
R301,339	OB23053A	RK 150 1/8W J			
R302	OB23117A	RK 68K 1/8W J			
R303,317	OB23105A	RK 22K 1/8W J			
602					
R304,323	OB23113A	RK 47K 1/8W J			
332,334					
340					
R305,327	OB23103A	RK 18K 1/8W J			
R306,330	OB23121A	RK 100K 1/8W J			
601					
R307	OB05650A	RK 12K 1/4W VJ			
R308	OB23085A	RK 3.3K 1/8W J			
R309	OB23101A	RK 15K 1/8W J			
R310,312	OB23073A	RK 1K 1/8W J			
322,328					
R311	OB05615A	RK 22K 1/4W J			
R313,333	OB23097A	RK 10K 1/8W J			
336,337					
R314,315	OB23089A	RK 4.7K 1/8W J			
316					
R318	OB05629A	RK 2.7K 1/4W J			
R319,320	OB23063A	RK 2.7K 1/8W J			
338					
R321	OB01889A	RK 100K 1/4W J			
R324	OB23093A	RK 6.8K 1/8W J			
R325	OB23087A	RK 3.9K 1/8W J			
R329	OB09703A	RK 12K 1/6W J			
R331	OB23111A	RK 39K 1/8W J			
R335	OB09717A	RK 47K 1/6W J			
R603	OB23037A	RK 33 1/8W J			
C101,201	OB41233A	CP 2200P 100V J			
C102,202	OB40255A	CE 1 $\mu$ 50V			
C103,203	OB41218A	CP 330P 100V J			
C104,204	OB41237A	CP 330P 100V J			
C105,205	OB41239A	CP 390P 100V J			
C301,302	OB43053A	CC 0.047 $\mu$ 50V K			
303,306					
311,312					
313					
C305	OB43050A	CC 1000P 50V K			
C307,603	OB40173A	CE 1 $\mu$ 50V			
604					
C308	OB41394A	CP 220P 50V J			
C309,330	OB40258A	CE 4.7 $\mu$ 35V			
C310	OB40019A	CE 4.7 $\mu$ 35V			
C314	OB40165A	CE 47 $\mu$ 16V			
C315	OB40174A	CE 2.2 $\mu$ 50V			
C316,317	OB43049A	CC 270P 50V K			
319					
C318	OB09284A	CC 270P 50V J			
C320,333	OB41094A	CM 0.01 $\mu$ 50V			
339					
C321	OB40163A	CE 22 $\mu$ 16V			
C322	OB01802A	CM 2200P 50V J			
C323	OB01914A	CM 3300P 50V J			
C324	OB40206A	CE 100 $\mu$ 35V			
C325	OB05530A	CM 6800P 50V J			

(2) For TD-700 (Australia & Others), TD-700E and TD-700D

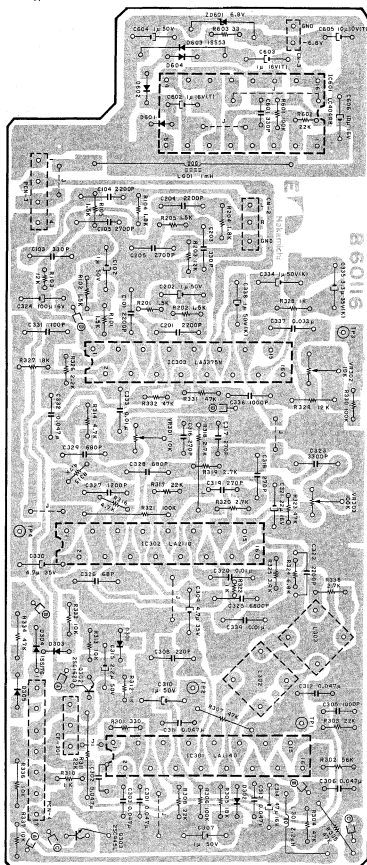


Fig. 8.11.2



Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description
	BA05458A	Tuner P.C.B. Ass'y TD-700 (Australia & Others), TD-700E & TD-700D	C328,329 C331 C332 C334,338 C335 C336 C337 C601 C602 C605 C606 CF301	0B05571A 0B41386A 0B05796A 0B40263A 0B40264A 0B41225A 0B05583A 0B43055A 0B43025A 0B43020A 0B40162A 0B41076A	CM 680P 50V J CP 100P 50V J CM 0.047 $\mu$ 50V J CE 1 $\mu$ 50V K CE 3.3 $\mu$ 35V K CP 1000P 100V J CM 0.033 $\mu$ 50V J CC 380P 50V K CT 1 $\mu$ 16V CT 10 $\mu$ 10V CE 10 $\mu$ 16V Ceramic Filter
	0B60116E	Tuner P.C.B.	CN3 PCN2 PCN3 PCN4	0B81036A 0B81283A 0B82288A 0B82289A 0E00764A	SFE10.7MS8GKY-A 2P-S Post (1) 3P-S Post (1) 4P Connector (1) 7P Connector (1) M2.6x6 $\Phi$ Pan (2A) (1)
IC301	0B06412A	IC LA1140			P.C.B. Holder Stud (1)
IC302	0B06414A	IC LA2110			Contact Pin 1P (1)
IC303	0B06415B	IC LA3370N			Shield Case (1)
IC601	0B11066A	IC LC4049B			
Q302	0B14022A	TR 2SC1623			
Q303	0B01872A	TP 2SC945L (P,Q)			
ZD601	0B06241A	ZD 6.8V RD6.8EB2			
D301,302 303,601 602	0B13064A	SID MA221			
D304					
D305,604	0B06398A	SID 1S5176			
D603	0B13003A	SID RLS-73			
L301	0B06181A	SID 1S553			
L302	0B51106A	Micro Coil 2.2 $\mu$ H			
L303	0B51142A	Det. Coil 57-1291-01			
L601	0B06712A	Det. Coil 57-1057-01			
VR301,302 VR303	0B51040A	Micro Coil 1mH			
R101,102 105,201 202,205	0B32035A	Potentiometer 10K			
R103,203	0B32038A	Potentiometer 100K			
R104,204	0B23077A	RK 1.5K 1/8W J			
R301					
R302	0B23099A	RK 12K 1/8W J			
R303,308 317,602	0B23079A	RK 1.8K 1/8W J			
R304,323 331,332 334	0B23061A	RK 330 1/8W J			
R305,327 R306,330 601	0B23115A	RK 56K 1/8W J			
R307	0B23105A	RK 22K 1/8W J			
R310,312 322,328	0B23113A	RK 47K 1/8W J			
R311					
R313,333 336,337	0B23103A	RK 18K 1/8W J			
R314,315 316	0B23121A	RK 100K 1/8W J			
R318	0B05562A	RK 47K 1/4W VJ			
R319,320 338	0B23073A	RK 1K 1/8W J			
R321					
R324	0B05615A	RK 22K 1/4W J			
R325	0B23097A	RK 10K 1/8W J			
R326	0B23089A	RK 4.7K 1/8W J			
R329					
R335	0B05629A	RK 2.7K 1/4W J			
R603	0B23083A	RK 2.7K 1/8W J			
C101,104 201,204	0B01889A	RK 100K 1/4W J			
C102,202	0B23093A	RK 6.8K 1/8W J			
C103,203	0B23087A	RK 3.9K 1/8W J			
C105,205	0B23081A	RK 2.2K 1/8W J			
C301,302 303,306 311,312 313	0B09703A	RK 12K 1/6W J			
C305	0B09717A	RK 47K 1/6W J			
C307,310 603,604	0B23037A	RK 33 1/8W J			
C308	0B41233A	CP 2200P 100V J			
C309,330					
C314	0B40255A	CE 1 $\mu$ 50V			
C315	0B41213A	CP 330P 100V J			
C316,317 319	0B41236A	CP 2700P 100V J			
C318	0B43053A	CC 0.047 $\mu$ 50V K			
C320,333 339					
C321	0B43050A	CC 1000P 50V K			
C322	0B40173A	CE 1 $\mu$ 50V			
C323					
C324	0B41394A	CP 220P 50V J			
C325	0B40258A	CE 4.7 $\mu$ 35V			
C326	0B40165A	CE 47 $\mu$ 16V			
C327	0B40174A	CE 2.2 $\mu$ 50V			
	0B43049A	CC 270P 50V K			
	0B09284A	CC 270P 50V J			
	0B41094A	CM 0.01 $\mu$ 50V			
	0B40163A	CE 22 $\mu$ 16V			
	0B01802A	CM 2200P 50V J			
	0B01914A	CM 3300P 50V J			
	0B40206A	CE 100 $\mu$ 16V			
	0B05530A	CM 6800P 50V J			
	0B41191A	C 68P 100V J			
	0B05687A	CM 1200P 50V J			

(3) For TD-700 (Japan)

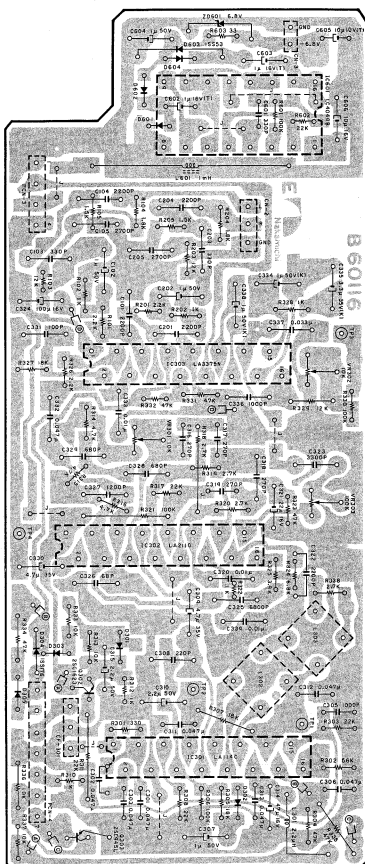


Fig. 8.11.3

Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description
	BA05423A	Tuner P.C.B. Ass'y TD-700 (Japan)	C332	0B05796A	CM 0.047 $\mu$ 50V J
			C334,338	0B40263A	CE 1 $\mu$ 50V K
IC301	0B60116E	Tuner P.C.B.	C335	0B40264A	CE 3.3 $\mu$ 35V K
IC302	0B06412A	IC LA1140	C336	0B41225A	CP 1000P 100V J
IC303	0B06414A	IC LA2110	C337	0B05583A	CM 0.033 $\mu$ 50V J
IC601	0B06415B	IC LA3375N	C601	0B43055A	CC 330P 50V K
Q302	0B11066A	IC LC4049B	C602	0B43025A	CT 1 $\mu$ 16V
Q303	0B14022A	TR 2SC1623	C605	0B43020A	CT 10 $\mu$ 10V
Q303	0B01872A	TR 2SC945L (P,Q)	C606	0B40162A	CE 10 $\mu$ 16V
ZD601	0B06241A	ZD 6.8V RD6,8EB2	CF301	0B41075A	Ceramic Filter
D301,302	0B13064A	SiD MA221			SFE10.7MLK-A
303,601			CN3	0B81036A	2P-S Post (1)
602			PCN2	0B81283A	3P-S Post (1)
D304	0B06398A	SiD 1SS176	PCN3	0B82288A	4P Connector (1)
D305,604	0B13003A	SiD RLS-73	PCN4	0B82289A	TP Connector (3)
D603	0B06181A	SiD 1SS53		0E00764A	M2.6x6 $\Phi$ Pan (2A)
L301	0B51106A	Micro Coil 2.2 $\mu$ H			(1)
L302	0B51142A	Det. Coil		0J04869A	P.C.B. Holder Stud (1)
		57-1291-01			(1)
L303	0B06712A	Det. Coil		0B81117A	Contact Pin 1P (4)
		57-1057-01		0J04871B	Shield Case (1)
L601	0B51040A	Micro Coil 1mH			
VR301,302	0B32035A	Potentiometer 10K			
VR303	0B32038A	Potentiometer 100K			
R101,201	0B23061A	RK 2.2K 1/8W J			
325					
R102,202	0B23073A	RK 1K 1/8W J			
310,312					
322,328					
R103,203	0B23099A	RK 12K 1/8W J			
R104,204	0B23079A	RK 1.8K 1/8W J			
R105,205	0B23077A	RK 1.5K 1/8W J			
R301	0B23061A	RK 330 1/8W J			
R302	0B23115A	RK 56K 1/8W J			
R303,308	0B23105A	RK 22K 1/8W J			
317,602					
R304,323	0B23113A	RK 47K 1/8W J			
331,332					
334					
R305,327	0B23103A	RK 18K 1/8W J			
R306,330	0B23121A	RK 100K 1/8W J			
601					
R307	0B05561A	RK 18K 1/4W VJ			
R311	0B05615A	RK 22K 1/4W J			
R313,333	0B23097A	RK 10K 1/8W J			
336,337					
R314,315	0B23089A	RK 4.7K 1/8W J			
316					
R318	0B05629A	RK 2.7K 1/4W J			
R319,320	0B23083A	RK 2.7K 1/8W J			
338					
R321	0B01889A	RK 100K 1/4W J			
R324	0B23093A	RK 6.8K 1/8W J			
R325	0B23087A	RK 3.9K 1/8W J			
R329	0B09703A	RK 12K 1/6W J			
R335	0B09717A	RK 47K 1/6W J			
R603	0B23037A	RK 33 1/8W J			
C101,104	0B41233A	CP 2200P 100V J			
201,204					
C102,202	0B40255A	CE 1 $\mu$ 50V			
C103,203	0B41213A	CP 330P 100V J			
C105,205	0B41235A	CP 2700P 100V J			
C301,302	0B43053A	CC 0.047 $\mu$ 50V K			
303,306					
311,312					
313					
C305	0B43050A	CC 1000P 50V K			
C307,603	0B40173A	CE 1 $\mu$ 50V			
604					
C308	0B41394A	CP 220P 50V J			
C309,330	0B40258A	CE 4.7 $\mu$ 35V			
C310,315	0B40174A	CE 2.2 $\mu$ 50V			
C314	0B40165A	CE 47 $\mu$ 16V			
C316,317	0B43049A	CC 270P 50V K			
319					
C318	0B09284A	CC 270P 50V J			
C320,333	0B41094A	CM 0.01 $\mu$ 50V			
339					
C321	0B40163A	CE 22 $\mu$ 16V			
C322	0B01802A	CM 2200P 50V J			
C323	0B01914A	CM 3300P 50V J			
C324	0B40206A	CE 100 $\mu$ 16V			
C325	0B05530A	CM 6800P 50V J			
C326	0B41191A	C 68P 100V J			
C327	0B05687A	CM 1200P 50V J			
C328,329	0B05571A	CM 680P 50V J			
C331	0B41386A	CP 100P 50V J			

Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description
	BA05611A	Amp. P.C.B. Ass'y Serial No.: C60501001 - C60701301 -	R301 R308 C105,106 205,206 C107,207 C108,208	0B23061A 0B23069A 0B41369A 0B41373A 0B40256A	RK 5.6K 1/8W J RK 680 1/8W J CM 0.033 $\mu$ 50V J CM 0.068 $\mu$ 50V J CE 2.2 $\mu$ 50V
	— Dolby NR —			— Line Amp. —	
IC101,201 ZD302	0B14119A 0B13011A	IC TEA0665 ZD 5.6V	IC303 Q103,203 Q301	0B11001A Q103,203 0B14027A 0B26009A	IC NJM4558M TR 28C2878 TR 2SA812 RM 100K 1/8W F
D201 L101,201 L102,202 R123,223 R124,224 R125,225 R126,226 R127,227 R128,228 R129,229 R130,230 R131,231	0B13003A 0B51149A 0B51146A 0B23057A 0B23089A 0B23071A 0B23059A 0B26007A 0B26006A 0B23090A 0B23117A 0B23081A	SID RL5.6BTE-11 Inductor 8.2mH L-C Block RK 220 1/8W J RK 4.7K 1/8W J RK 820 1/8W J RK 270 1/8W J RM 33K 1/8W F RM 82K 1/8W F RK 5.1K 1/8W J RK 68K 1/8W J RK 2.2K 1/8W J	R133,134 135,136 235,234 235,236 R137,237 R138,139 238,239 R147,247 R148,248 R304 R305 C121,122 221,222 SW301	0B26010A 0B26008A 0B23073A 0B23089A 0B23097A 0B23121A 0B41476A	RM 8.25K 1/8W F RM 10K 1/8W F RK 1K 1/8W J RK 4.7K 1/8W J RK 10K 1/8W J RK 100K 1/8W J CM 0.1 $\mu$ 50V J
R132,232 R303 R309 C109,209 C110,116 210,216 C111,117 211,217 302 C112,118 212,218 C113,119 213,219 C114,120 214,220 C115,215 C129,229 0B30,230	0B22447A 0B23097A 0B09669A 0B05659A 0B41141A 0B40009A 0B41371A 0B41176A 0B40282A 0B05681A 0B4006A 0B40207A 0B81177A	RM 82K 1/6W F RK 10K 1/8W J RK 470 1/6W J CM 5600P 50V J CP 4700P 100V G CE 10 $\mu$ 16V CM 0.047 $\mu$ 50V J CM 0.22 $\mu$ 50V J CT 0.68 $\mu$ 35V K CM 0.01 $\mu$ 50V J CE 100 $\mu$ 16V CE 470 $\mu$ 6.3V Contact Pin 1P (2)	SW301 CN1 CN2 CN3 CN5 CN6 CP1 PCN1 PCN2	0B70022A 0B60113E 0B81187A 0B82303A 0B82304A 0B82306A 0B82382A 0B82380A 0B82335A 0B82337A 0B90021A 0E00174A	Slide Switch Amp. P.C.B. 4P-S Post 3P-H Connector 1P Connector 4P-H Connector 6P Coupler EMC-G06 2P Coupler EMC-G02 3P Connector 6P Connector Band EG-9 Earth Lug B-4 (2) (1)
	— Head Amp. —			BA05476B	Amp. P.C.B. Ass'y Serial No.: C60501001 - 03550 C60701001 - 01300  Contents is the same as BA05611A except for the following parts:
IC301 Q101,201 Q102,202 ZD301	0B11017A 0B06376A 0B14022A 0B12162A	IC NJM072S-E FET 2SK170 (GR) TR 2SC1623 ZD 8.2V RD8.2JS-T1B2	CP1 CP2	0B82293A 0B82295B	6P Coupler TVQ (1) 2P Coupler TVQ (1)
VR101,201 R101,106 201,206 R102,202 R103,203 R105,205 R107,207 R108,208 R109,209 R110,210 R111,211 R112,212 R113,213 R306 R307 C101,201 C102,202 C103,203 C104,204 C301 C302	0B32039A 0B23121A 0B22601A 0B22644A 0B26010A 0B22548A 0B22491A 0B26002A 0B26003A 0B23093A 0B23097A 0B23145A 0B23081A 0B23069A 0B41177A 0B40259A 0B09858A 0B09861A 0B40357A 0B40356A 0B81177A 0B90044A	Potentiometer 10K RK 100K 1/8W J RM 80.6 1/4W F RM 1.54K 1/4W F RM 8.25K 1/8W F RM 4.7M 1/4W J RM 210K 1/6W F RM 2.15K 1/8W F RM 2.67K 1/8W F RK 6.8K 1/8W J RK 10K 1/8W J RK 1M 1/8W J RK 2.2K 1/8W J RK 680 1/8W J CM 0.33 $\mu$ 50V J CE 10 $\mu$ 16V CM 0.015 $\mu$ 50V J CF 0.027 $\mu$ 50V J CE 330 $\mu$ 10V CE 220 $\mu$ 10V Contact Pin 1P (1) Shield Belt (1)			
	— Subsonic Filter —				
IC302 IC305 D301 R115,215 R116,118 216,218 R117,217 R119,219 R120,220 R121,221 R122,222 R149,249	0B11032A 0B10227A 0B13063A 0B23115A 0B23137A 0B23129A 0B23139A 0B26004A 0B23145A 0B26005A 0B23141A	IC LF353N IC T454P SID DAP202K RK 56K 1/8W J RK 470K 1/8W J RK 220K 1/8W J RK 560K 1/8W J RM 8.66K 1/8W F RK 1M 1/8W J RM 1K 1/8W F RK 680K 1/8W J			

8.12. Amp. P.C.B. Assy

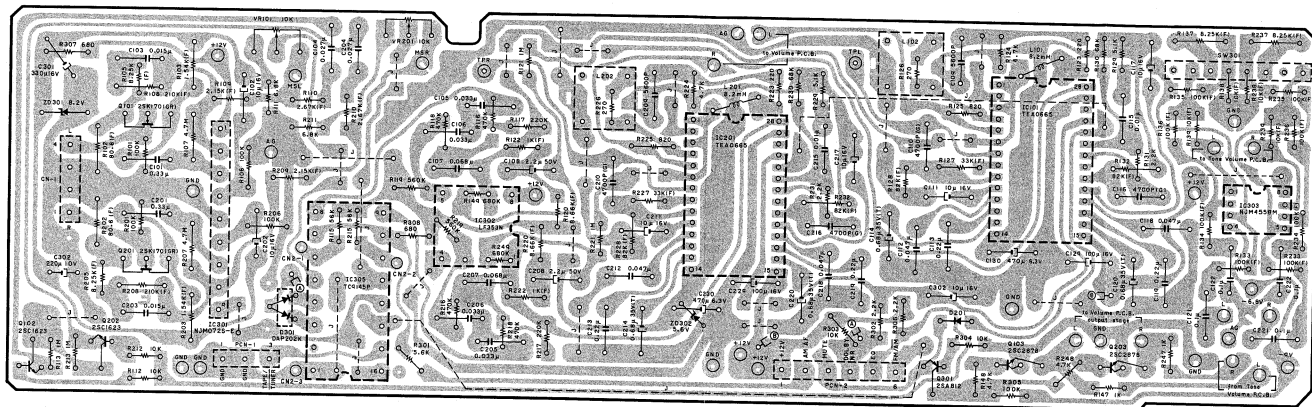


Fig. 8.12

8.13. Logic P.C.B. Assy

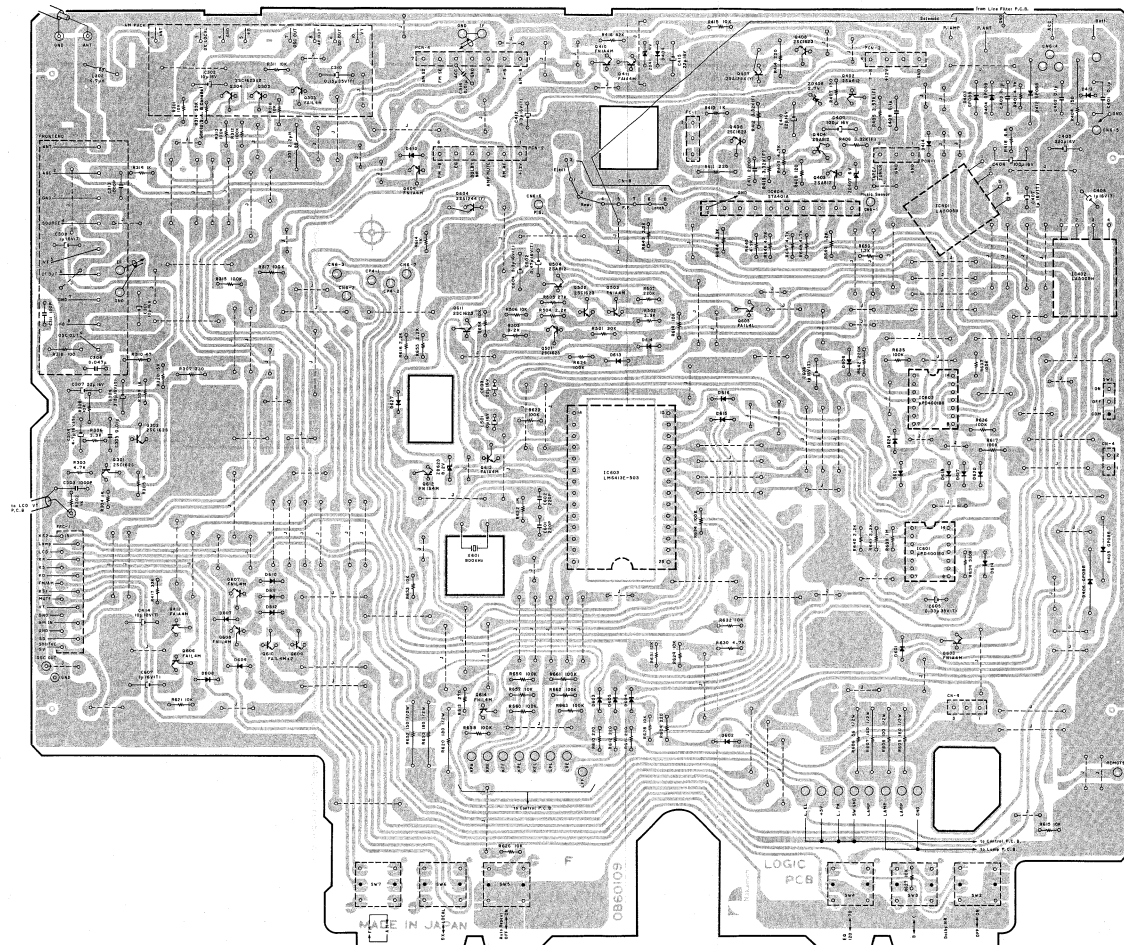
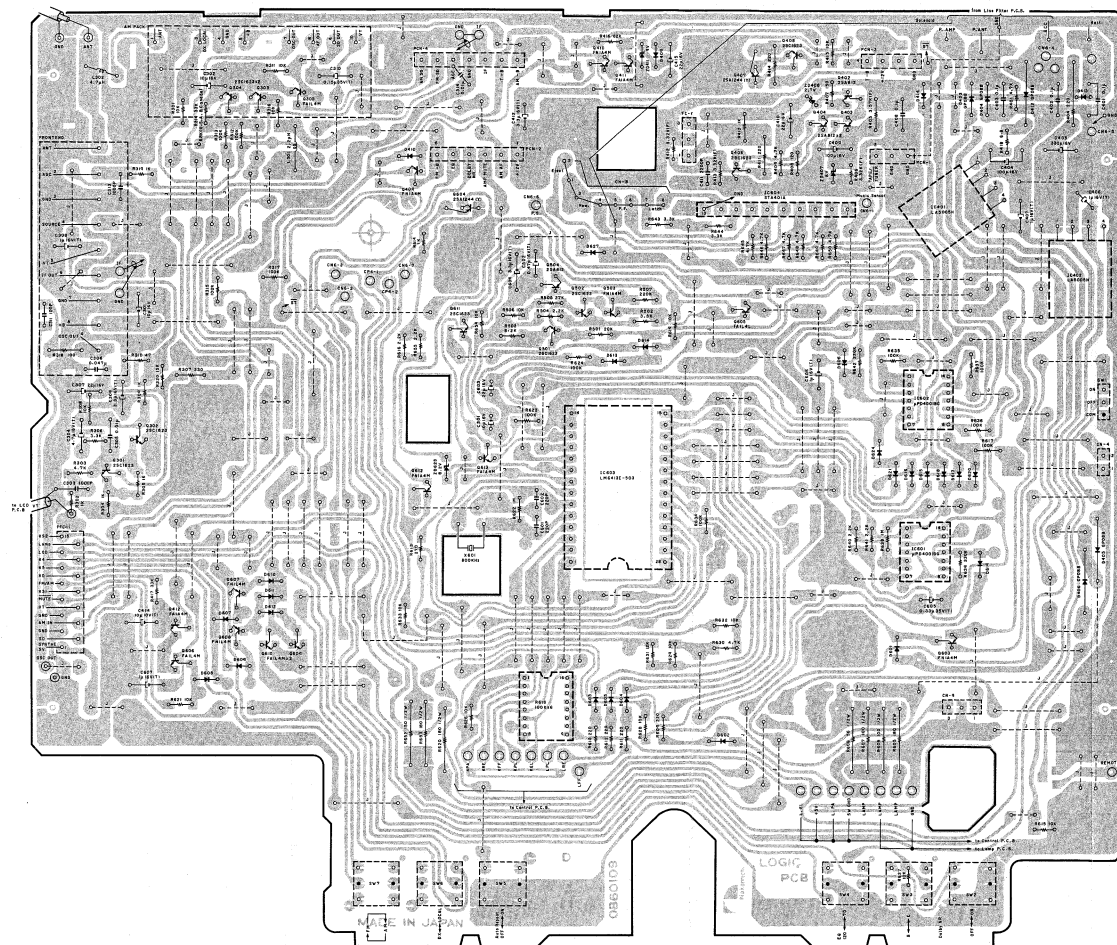


Fig. 8.13.1 C60504101 - (TD-700 & TD-700E)

Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description
BA05618A		Logic P.C.B. Assy TD-700 (Japan)	ZD411	OB13026A	ZD 9V		OB91004A	Front-end TD-700 (U.S.A. & Canada)
BA05619A		Logic P.C.B. Assy TD-700 (U.S.A. & Canada)	D403,404	OB06109A	Logic R1LZ9.1BTE-11		OB91003A	Front-end TD-700 (Japan)
BA05620A		Logic P.C.B. Assy TD-700 (Australia & Others) & TD-700E	405,406		SID GP08B			— Miscellaneous —
BA05622A		Logic P.C.B. Assy TD-700D	412			— CN9 —		
		Serial No.: C6050401 - 1	D409,410	OB13003A	SID RLS-73		OB60109F	Logic P.C.B.
			D413,414	OB13064A	SID MA221		OB81037A	3P-S Post
			R401,409	OB23085A	RK 4.7K 1/8W J		OB81273B	4P Terminal (1)
			R404	OB05795A	RK 150 1/4W J		OB82290A	4P Connector (1)
			R405	OB26012A	RM 3.57K 1/8W F		OB82291A	7P Connector (1)
			R406,412	OB26013A	RM 3.32K 1/8W F		OB82298B	2P Coupler (1)
			413				OB82307C	7P-H Connector (1)
			R407	OB23053A	RK 150 1/8W J		OB82309B	8P-H Connector (1)
			R408	OB23051A	RK 120 1/8W J		OB82334A	3P Connector (1)
			R410	OB23073A	RK 1K 1/8W J		OB82336A	6P Connector (1)
			R411,414	OB23150A	RK 220 1/4W J		OB90019A	SK Binder (1)
			R415	OB23097A	RK 10K 1/8W J		OB00174A	Earth Lug B-4 (4)
			R416	OB23119A	RK 82K 1/8W J		OB81272B	4P Terminal Male TD-700D (1)
			R417	OB23109A	RK 33K 1/8W J		OB81273B	4P Terminal Female TD-700D (1)
			R418	OB23021A	RK 6.8 1/8W J		OB81268B	4P Terminal Male TD-700 & TD-700E (1)
			C401,402	OB09292A	CC 0.1u 50V Z		BA05501A	Line Filter P.C.B. Assy (1)
			408				BA05497A	Transistor P.C.B. Assy (1)
			C403	OB43054A	CC 0.1u 50V Z			
			C404,409	OB42006A	CE 100u 16V			
			C405	OB40080A	CE 330u 16V			
			C406,407	OB43025A	CT 1u 16V			
			C410,415	OB40163A	CE 22u 16V			
			C411	OB43051A	CT 2200P 50V K			
			C412	OB43028A	CT 3.3u 16V			
			C414	OB43020A	CT 10u 10V			
				— Reset —				
			Q501,502	OB14022A	TR 2SC1623			
			Q503	OB14153A	TR FN1A4M			
			Q504	OB14027A	TR 2SA812			
			R501	OB23104A	RK 20K 1/8W J			
			R502	OB23085A	RK 3.3K 1/8W J			
			R503	OB23095A	RK 8.2K 1/8W J			
			R504	OB23081A	RK 2.2K 1/8W J			
			R505	OB23075A	RK 27K 1/8W J			
			R506	OB23097A	RK 10K 1/8W J			
			R507	OB23129A	RK 220K 1/8W J			
			C501	OB40162A	CE 10u 16V			
			C502	OB43023A	CT 0.47u 16V			
				— Tuner —				
			Q301,302	OB14022A	TR 2SC1623			
			Q303	OB14146A	TR FA1A4M			
			L301	OB51106A	Micro Coil 2.2uH			
			L302	OB51011A	Micro Coil 4.7uH			
			R301,308	OB23097A	RK 10K 1/8W J			
			311,316					
			R302,304	OB23073A	RK 1K 1/8W J			
			305,309					
			R303	OB23089A	RK 4.7K 1/8W J			
			R306	OB23085A	RK 3.3K 1/8W J			
			R307	OB23061A	RK 330 1/8W J			
			R310	OB23041A	RK 15K 1/8W J			
			R312,313	OB23121A	RK 100K 1/8W J			
			315,317					
			R314	OB23109A	RK 33K 1/8W J (except for U.S.A. & Canada)			
				OB23117A	RK 68K 1/8W J (U.S.A. & Canada)			
			R318	OB09653A	RK 100 1/8W J			
			R320	OB23101A	RK 15K 1/8W J			
			C301,302	OB40162A	CE 10u 16V			
			C303	OB43050A	CC 1000P 50V K			
			C304	OB40280A	CT 4.7u 16V			
			OB41094A	CM 0.01u 50V J				
			C306	OB43053A	CC 0.047u 50V K			
			C307	OB40163A	CE 22u 16V			
			C308	OB43025A	CT 1u 16V			
			C309	OB40279A	CT 3.3u 16V			
			C310	OB43035A	CT 0.15u 35V			
			C311	OB43047A	CC 100P 50V K			
			C313	OB41082A	CM 1000P 50V J			
			C314	OB43052A	CC 0.01u 50V K			
				OB91005A	AM Freq. (1)			
			OB91006A		Front-end TD-700 (Australia & Others), TD-700E & TD-700D			
IC601,602	OB11063A	IC $\mu$ PD4001BG						
IC603	OB11061A	IC LM6413E-503						
IC604	OB10048A	IC STA 401A						
Q603,612	OB14153A	TR FN1A4M						
Q604	OB10017A	TR 2SA1244 (Y)						
Q605	OB14149A	TR FA1A4M						
Q606,609	OB14146A	TR FA1A4M						
610								
Q607,608	OB14151A	TR FN1A4M						
614								
Q611	OB14022A	TR 2SC1623						
Q613	OB14144A	TR FA1A4M						
ZD623	OB13024A	ZD 8.2V						
		RLZ8.2CTE-11						
D601-621	OB13064A	SID MA221 (23)						
624,627								
X601	OB02307A	Crystal 800kHz						
R605,620	OB24035A	RF 180 1/2W J						
653								
R606	OB24041A	RF 56 1/2W J						
R607,608	OB09907A	RF 100 1/2W J						
R609,610	OB23057A	RK 220 1/8W J						
611,612								
R612	OB23059A	RK 270 1/8W J						
R614	OB23073A	RK 1K 1/8W J						
R615,619	OB23097A	RK 10K 1/8W J						
621,626								
627,628								
629,632								
633,654								
657								
R616,640	OB23081A	RK 2.2K 1/8W J						
641,655								
R617,623	OB23121A	RK 100K 1/8W J (13)						
624,634								
635,636								
637								
658-663								
R622,638	OB23145A	RK 1M 1/8W J						
R630	OB23089A	RK 4.7K 1/8W J (5)						
645-648								
R631	OB23099A	RK 12K 1/8W J						
R639	OB23133A	RK 330K 1/8W J						
R642	OB23129A	RK 220K 1/8W J						
R643,644	OB23085A	RK 3.3K 1/8W J						
R649,650	OB23075A	RK 1.2K 1/8W J						
R652	OB24040A	RF 150 1/2W J						
CM01,602	OB43048A	CC 220P 50V K						
C603	OB40163A	CE 22u 16V						
C604	OB43028A	CT 3.3u 16V						
C605	OB43037A	CT 0.33u 35V						
C606,607	OB43025A	CT 1u 16V						
SW1,65	OB70018A	Push Switch						
SW6	OB70021A	Slide Switch						
SW7	OB70019A	Push Switch						
CN4	OB81025A	2P-T Post						
FFC1	OB81279A	15P FFC Connector						
		— Regulator —						
IC401,402	OB11034A	IC LA5005H						
Q402,403	OB14027A	TR 2SA812						
404								
Q406,408	OB14022A	TR 2SC1623						
Q407	OB10017A	TR 2SA1244 (Y)						
Q409,410	OB14153A	TR FN1A4M						
Q411,412	OB14144A	TR FA1A4M						
ZD407	OB13014A	ZD 6V						
		FLZ6.2BTE-11						
ZD408	OB14121A	ZD 2.7V						
		RD2.7MB-T1A						

Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description
BA05618A		Logic P.C.B. Assy	D403,404	OB08109A	SID GP08B	OB91004A		Front-end TD-700
BA05619A		TD-700 (Japan)	405,406			OB91003A		(U.S.A. & Canada)
BA05620A		Logic P.C.B. Assy	D409,410	OB13003A	SID RLS-73	— Miscellaneous —		
		TD-700 (Australia & Others)	D413,414	OB13064A	SID MA221	OB60109D		Logic P.C.B.
BA05622A		TD-700E	R401,409	OB23059A	RK 4.7K 1/8W J	OB81037A		3P S Post
		Logic P.C.B. Assy	R404	OB01933A	RK 220 1/4W J	OB81273B		4P Terminal (1)
		Serial Nos.:	R405	OB26012A	RM 3.57K 1/8W F	OB82290A		4P Connector (1)
		C60503399 - 04100	R406,412	OB26013A	RM 3,32K 1/8W F	OB82291A		7P Connector (1)
		C60701251	413			OB82298B		2P Coupler (1)
— CPU —			R407	OB23053A	RK 150 1/8W J	OB82307C		7P-H Connector (1)
IC601,602	OB11063A	IC $\mu$ PD4001BG	R408	OB23051A	RK 120 1/8W J	OB82309B		8P-H Connector (1)
IC603	OB11061A	IC LM6412E-503	R410	OB23073A	RK 1K 1/8W J	OB82334A		3P Connector (1)
IC604	OB10048A	IC STA401A	R411,414	OB23150A	RK 220 1/4W J	OB82336A		6P Connector (1)
Q603,612	OB14153A	TR FN1A4M	R415	OB23097A	RK 10K 1/8W J	OB90019A		SK Binder (1)
Q604	OB10017A	TR 2SA1244 (Y)	R416	OB23119A	RK 82K 1/8W J	OE00174A		Earth Lug B-4 (4)
Q605,609	OB14146A	TR FA1L4M	R417	OB23109A	RK 33K 1/8W J	OB81272B		4P Terminal Male
Q610			R418	OB23021A	RK 6.8 1/8W J	OB81273B		4P Terminal Female
Q607,608	OB14151A	TR FN1L4M	C401,402	OB09292A	CC 0.1 $\mu$ 50V Z	OB81268B		4P Terminal Male
Q611	OB14022A	TR 2SC1623	408	OB43054A	CC 0.1 $\mu$ 50V Z			TD-700 & TD-700E
Q613	OB14144A	TR FA1A4M	C404,409	OB42066A	CE 100 $\mu$ 16V	BA05501A		Line Filter P.C.B.
ZD623	OB13024A	ZD 8.2V	C405	OB40080A	CE 330 $\mu$ 16V	BA05497A		Assy Transistor P.C.B.
		RLZ8,2CTE-11	C406,407	OB43025A	CT 1 $\mu$ 16V			(1)
D601-621	OB13064A	SID MA221 (23)	C410,415	OB40163A	CC 22 $\mu$ 16V			
624,627			C411	OB43051A	CC 2200P 50V K			
X601	OB02307A	Crystal 800KHz	C412	OB43028A	CT 3.3 $\mu$ 16V			
R605,620	OB24035A	RF 180 1/2W J	C414	OB43020A	CT 10 $\mu$ 10V			
R606	OB24041A	RF 56 1/2W J	— Reset —					
R607,608	OB09907A	RF 100 1/2W J	Q501,502	OB14022A	TR 2SC1623			
R609,610	OB23057A	RK 220 1/8W J	Q503	OB14153A	TR FN1A4M			
R611,612			Q504	OB14027A	TR 2SA812			
R614	OB23059A	RK 270 1/8W J	R501	OB23104A	RK 20K 1/8W J			
R615,619	OB23073A	RK 1K 1/8W J	R502	OB23085A	RK 3.3K 1/8W J			
621,626	OB23097A	RK 10K 1/8W J	R503	OB23095A	RK 8.2K 1/8W J			
627,628			R504	OB23081A	RK 2.2K 1/8W J			
629,632			R505	OB23107A	RK 27K 1/8W J			
633,654			R506	OB23097A	RK 10K 1/8W J			
R616,640	OB23081A	RK 2.2K 1/8W J	R507	OB23129A	RK 220K 1/8W J			
R617,623	OB23121A	RK 100K 1/8W J	C501	OB40162A	CE 10 $\mu$ 16V			
641,655			C502	OB43023A	CT 0.47 $\mu$ 16V			
624,634			Q301,302	OB14022A	TR 2SC1623			
635,636			304,305					
R618	OB21001A	R-Network 100Kx6	Q303	OB14146A	TR FA1L4M			
R622,638	OB23145A	RK 1M 1/8W J	L301	OB51106A	Micro Coil 2.2 $\mu$ H			
R630	OB23089A	RK 4.7K 1/8W J	L302	OB51011A	Micro Coil 4.7 $\mu$ H			
645-650			R301,308	OB23097A	RK 10K 1/8W J			
R631	OB23099A	RK 12K 1/8W J	311,316					
R639	OB23133A	RK 330K 1/8W J	R302,304	OB23073A	RK 1K 1/8W J			
R642	OB23129A	RK 220K 1/8W J	305,309					
R643,644	OB23085A	RK 3.3K 1/8W J						
R652	OB24040A	RF 150 1/2W J	R303	OB23089A	RK 4.7K 1/8W J			
C601,602	OB43048A	CC 220P 50V K	R306	OB23085A	RK 3.3K 1/8W J			
C603	OB40163A	CE 22 $\mu$ 16V	R307	OB23061A	RK 330 1/8W J			
C604	OB43028A	CT 3.3 $\mu$ 16V	R310	OB23041A	RK 47 1/8W J			
C605	OB43037A	CT 0.33 $\mu$ 35V	R312,313	OB23121A	RK 100K 1/8W J			
C606,607	OB43025A	CT 1 $\mu$ 16V	R314	OB23109A	RK 33K 1/8W J			
SW1-5	OB70018A	Push Switch			(except for U.S.A. & Canada)			
SW6	OB70021A	Slide Switch						
SW7	OB70019A	Push Switch	R318	OB09653A	RK 100 1/6W J			
CN4	OB81025A	2P-T Post	R320	OB23101A	RK 15K 1/8W J			
FFC1	OB81279A	15P FFC Connector	C301,302	OB40162A	CE 10 $\mu$ 16V			
			C303	OB43050A	CC 1000P 50V K			
— Regulator —			C304	OB40280A	CT 4.7 $\mu$ 16V			
IC401,402	OB11034A	IC LA5005H	C305	OB41094A	CM 0.01 $\mu$ 50V J			
Q402,403	OB14027A	TR 2SA812	C306	OB43053A	CC 0.047 $\mu$ 50V K			
Q404			C307	OB40163A	CE 22 $\mu$ 16V			
Q406,408	OB14022A	TR 2SC1623	C308	OB43025A	CT 1 $\mu$ 16V			
Q407	OB10017A	TR 2SA1244 (Y)	C309	OB40279A	CT 3.3 $\mu$ 16V			
Q409,410	OB14153A	TR FN1A4M	C311	OB43054A	CT 0.15 $\mu$ 35V			
Q411,412	OB14144A	TR FA1A4M	C313	OB41082A	CM 1000P 50V J			
ZD407	OB13014A	ZD 6V	C314	OB43052A	CC 0.01 $\mu$ 50V K			
ZD408	OB14121A	PLZ6,2BTE-11		OB91005A	AM Pack (1)			
		ZD 2.7V			Front-end TD-700			
		ZD 72,7MB-T1A			(Australia & Others),			
ZD411	OB13026A	PLZ9,1BTE-11			TD-700E & TD-700D			





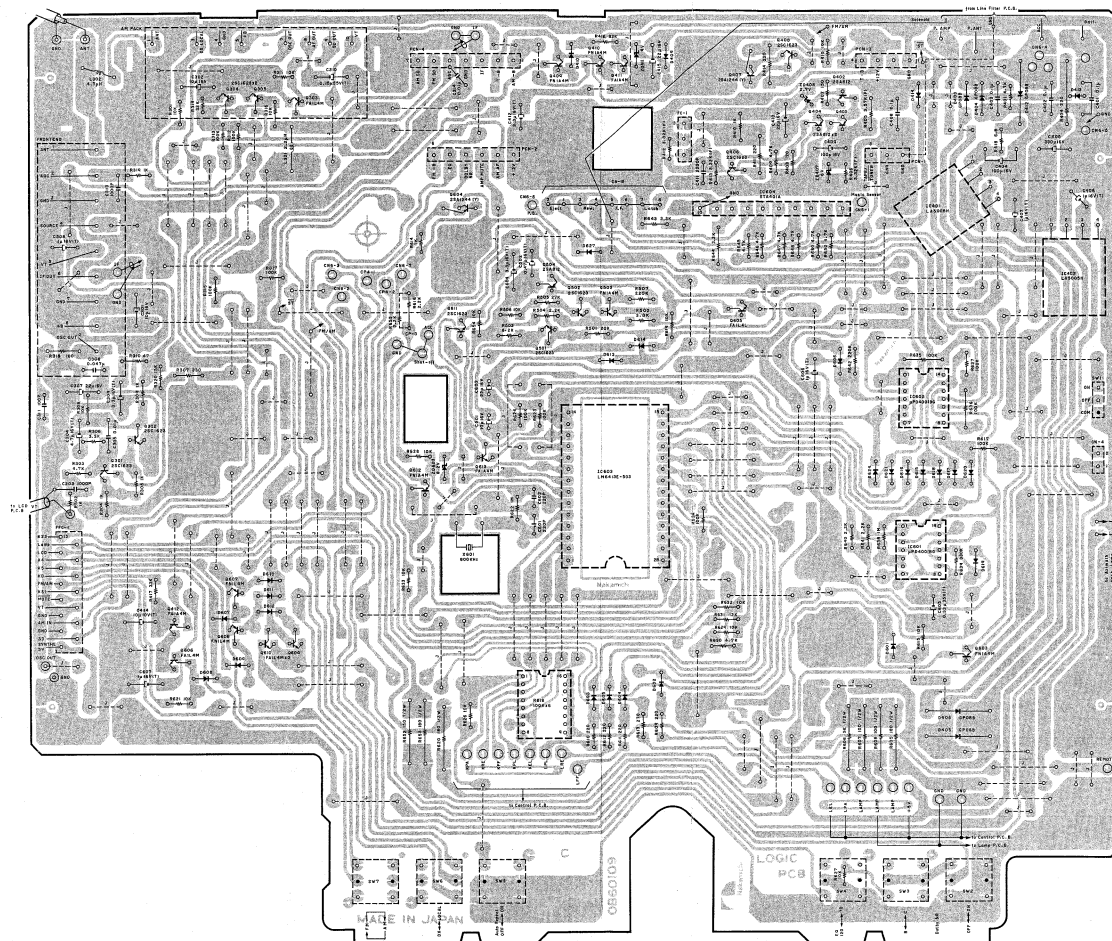


Fig. 8.13.3 C60501001 - 03398 (TD-700 & TD-700E)  
C80701001 - 01250 (TD-700D)

Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description
BA05407A		Logic P.C.B. Assy TD-700 (Japan)	D403.404	OB06109A	SID GP08B			— Miscellaneous —
BA05427A		Logic P.C.B. Assy TD-700 (U.S.A. & Canada)	D403.406					
BA05451A		Logic P.C.B. Assy TD-700 (Australia & Others)	D409.410	OB13003A	SID RLS-73	CP3		
BA05452A		Logic P.C.B. Assy TD-700D	D409.414	OB13003A	SID MA221			
		Serial Nos.: C60501001 - 03398 C60701001 - 01250	R401.409	OB23089A	RK 4.7K 1/8W J			
— CPU —			R401.409	OB13003A	RK 220K 1/4W J			
IC601.602		IC $\mu$ PD4001BG	R405	OB26012A	RM 3.57K 1/8W F			
IC603		IC LM6413E-503	R411.414	OB26013A	RM 3.52K 1/8W F			
IC604		IC STA401A	R407	OB23083A	RK 150 1/8W J			
Q603.612		Q114153A	R408	OB23073A	RK 1K 1/8W J			
Q604		Q114153A	R411.414	OB23073A	RK 1K 1/8W J			
Q605		Q114145A	R415	OB23097A	RK 10K 1/8W J			
Q606.609		Q114146A	R417	OB23119A	RK 82K 1/8W J			
Q607.608		Q114151A	R418	OB23119A	RK 82K 1/8W J			
Q611		Q114022A	C401.402	OB23021A	RK 6.8 1/8W J			
Q613		Q114144A	C403	OB23021A	CC 0.1 $\mu$ 50V Z			
ZD623		Q113024A	C405	OB43054A	CE 0.1 $\mu$ 50V Z			
		RLZ.2BTE-11	C406.407	OB40206A	CE 100 $\mu$ 16V			
		SID MA221 (23)	C410.415	OB40206A	CE 330 $\mu$ 16V			
D601.621		OB13064A	C411	OB40206A	CT 1 $\mu$ 16V			
624.627		OB23073A	C412	OB40206A	CT 3.3 $\mu$ 16V			
X601		OB23073A	C414	OB40206A	CT 10 $\mu$ 16V			
R605.620		OB24035A						
653								
R606		OB24041A						
R607.608		OB24041A						
R609.610		OB23057A						
611.612								
R613		OB23059A						
R614		OB23073A						
RG15.619		OB23097A						
621.626								
627.628								
629.632								
633.654								
R615.640		OB23081A						
641.655								
R617.653		OB23212A						
624.634								
635.636								
637								
R618		OB21001A						
R622.638		OB23145A						
R630		OB23089A						
645-650								
R631		OB23099A						
R639		OB23135A						
R642		OB23129A						
R643.644		OB23085A						
R645		OB24040A						
CM01.602		OB43048A						
C603		OB40163A						
C604		OB43028A						
C605		OB43074A						
C606.607		OB43055A						
SW1-5		Push Switch						
SW2		Slide Switch						
SW7		Push Switch						
CN4		27-P Post						
FFC1		15P FFC Connector						
— Regulator —								
IC401.402		IC LA5000H						
Q402.403		Q14027A						
Q404								
Q405.408		Q14022A						
Q407		Q10017A						
Q408.410		Q14153A						
Q411.412		Q14144A						
ZD407		Q13014A						
		ZD 6V						
ZD408		OB14121A						
ZD411		OB13026A						
		PLZ.2BTE-11						
		RLZ.3BTE-11						

## 9. SCHEMATIC DIAGRAMS

### 9.1. IC Block Diagrams

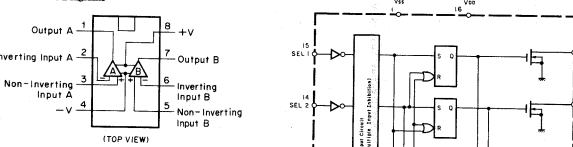


Fig. 9.1.1 Operational Amp. IC NJM4558M, NJM072, LF353N

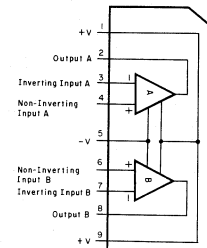


Fig. 9.1.2 Operational Amp. IC NJM072S-E

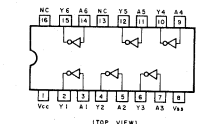


Fig. 9.1.3 Inverter C-MOS IC LC4049B

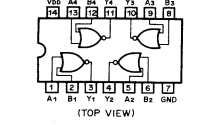


Fig. 9.1.4 NOR Gate C-MOS IC μPD4016G

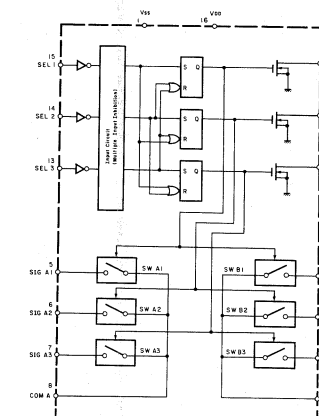


Fig. 9.1.5 Analog Switch Selector TC9145P

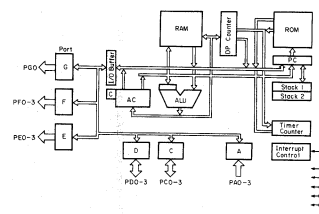


Fig. 9.1.6 4-Bit Micro-processor LM6413E-503

### 9.2. Schematic Diagrams

#### (1) Tuner Section

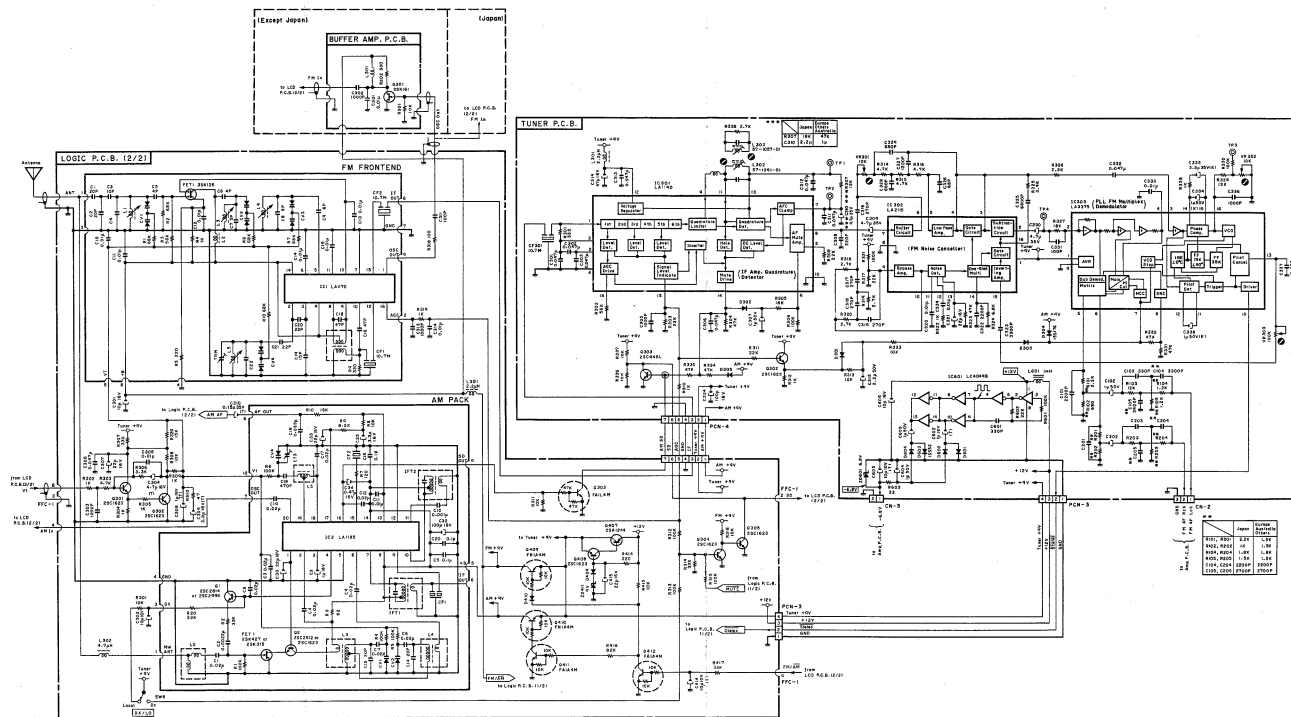


Fig. 9.2.1.1 TD-700E, TD-700D & TD-700 (Australia, Others & Japan)

Notes: 1. Diode is MA221 or RLS-73 unless otherwise specified.  
2. 2SC945, 2SC536SP, 2SC2458 and 2SC2785 are interchangeable with each other.

# 10. WIRING DIAGRAMS

Notes: 1 Table of wire colors

BRN — Brown	BLU — Blue
RED — Red	VIO — Violet
ORN — Orange	GRY — Gray
YEL — Yellow	WHT — White
GRN — Green	BLK — Black

2. Component side view of the P.C.B. is illustrated unless otherwise specified.

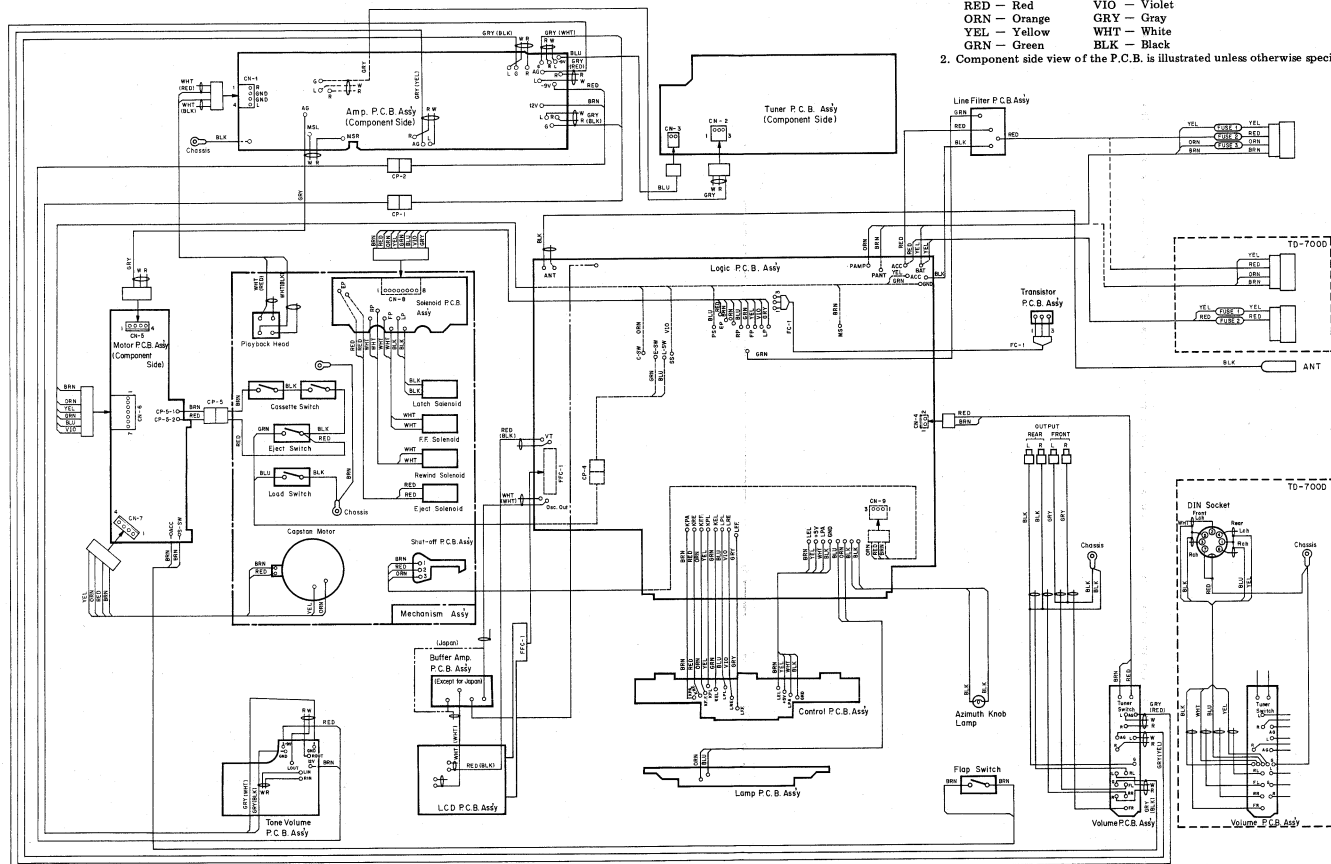


Fig. 10.1 C60503399 - (TD-700 & TD-700E)  
C60701301 - (TD-700D)

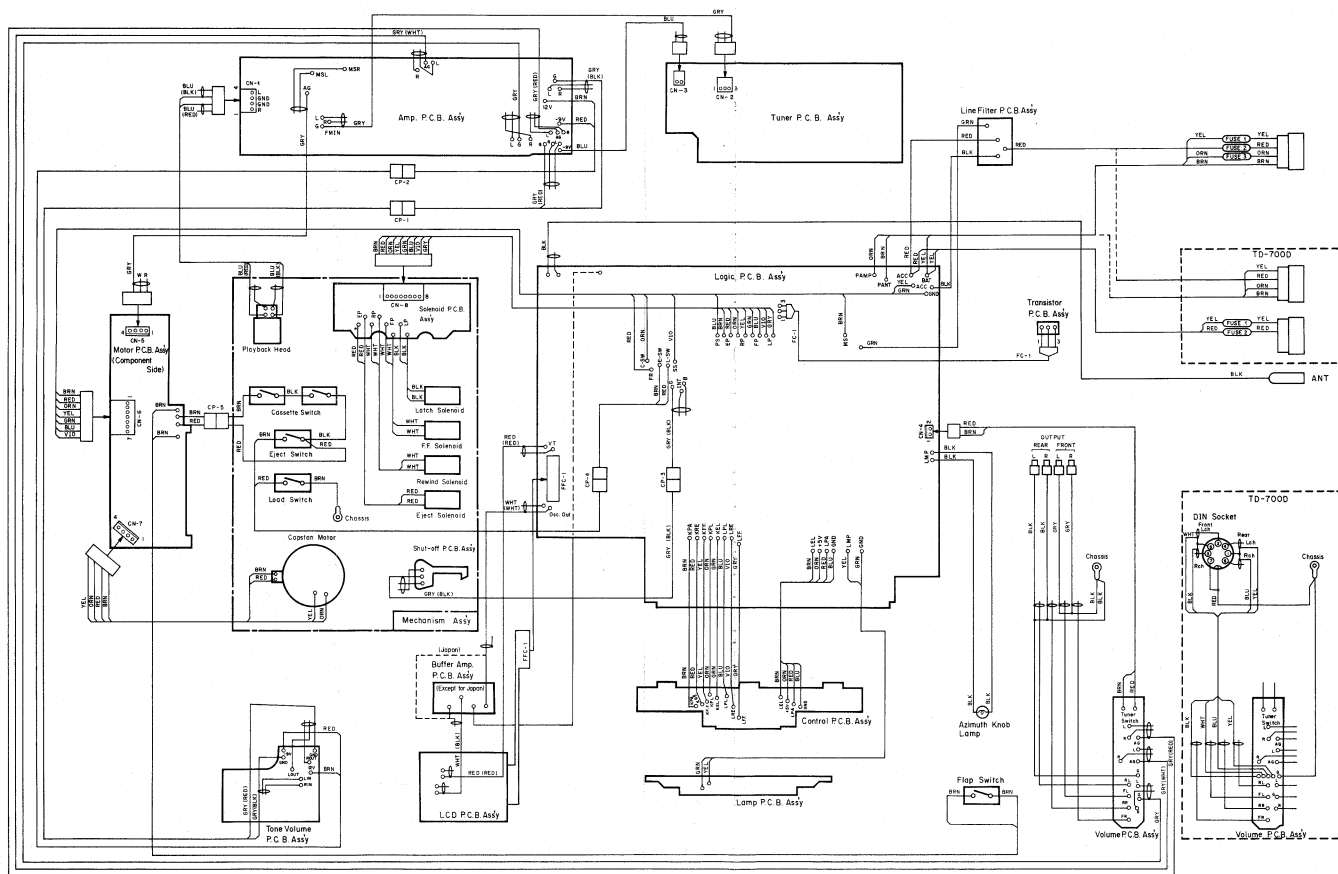


Fig. 10.2 C60501001 - 03298 (TD-700 & TD-700E)  
C60701001 - 01300 (TD-700D)

## 11. TIMING CHART

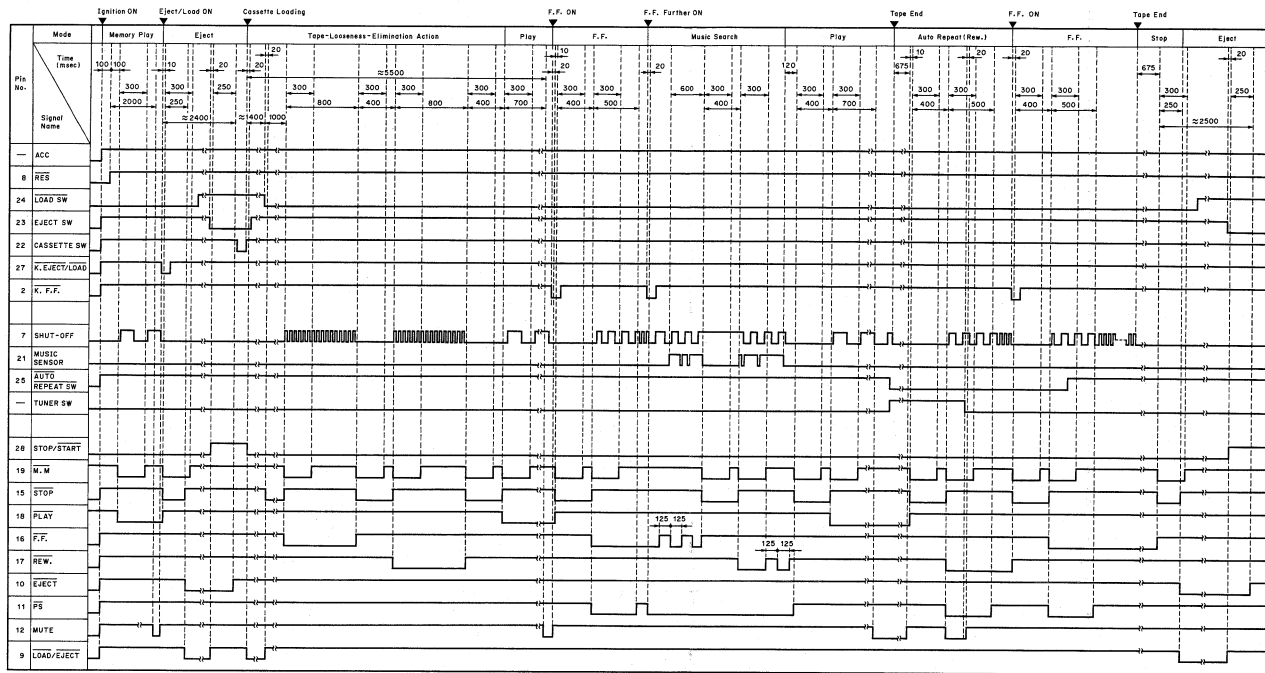


Fig. 11

### 12.1. Tuner and Amplifier Section

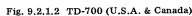


The schematic diagram illustrates the internal circuitry of a radio receiver, organized into several functional sections:

- Power Section:** Located at the bottom, it includes a power transformer with taps for 0V, 1.5V, 5V, 12V, and 15V. A 1000µF electrolytic capacitor is connected to the 12V tap. A 12V regulator (IC 401) and a 5V regulator (IC 402) are used to provide stable power to the tuner and other sections. A 100kΩ resistor is connected between the 12V and 5V regulators.
- Tuner Section:** This section includes a tuner IC (IC 403) which is connected to the 12V and 5V regulators. It also receives a 100kΩ resistor and a 100µF capacitor. The tuner IC is connected to the 12V regulator via a 100kΩ resistor and to the 5V regulator via a 100µF capacitor. The tuner IC is also connected to the 12V regulator via a 100kΩ resistor and to the 5V regulator via a 100µF capacitor.
- IF Amplifier Section:** This section includes an IF amplifier IC (IC 404) which is connected to the 12V and 5V regulators. It also receives a 100kΩ resistor and a 100µF capacitor. The IF amplifier IC is connected to the 12V regulator via a 100kΩ resistor and to the 5V regulator via a 100µF capacitor.
- Detector Section:** This section includes a detector IC (IC 405) which is connected to the 12V and 5V regulators. It also receives a 100kΩ resistor and a 100µF capacitor. The detector IC is connected to the 12V regulator via a 100kΩ resistor and to the 5V regulator via a 100µF capacitor.
- Other Components:** The diagram includes various other components such as resistors (100kΩ, 10kΩ, 1kΩ, 100Ω, 10Ω, 1Ω), capacitors (100µF, 10µF, 1µF, 100nF, 10nF, 1nF), and integrated circuits (IC 401, IC 402, IC 403, IC 404, IC 405).

Fig. 12.2



[illegible]

Notes: 1. Diode is MA221 or RLS-73 unless otherwise specified.  
2. 2SC945, 2SC536SP, 2SC2458 and 2SC2785 are interchangeable with each other.

(2) Amplifier Section

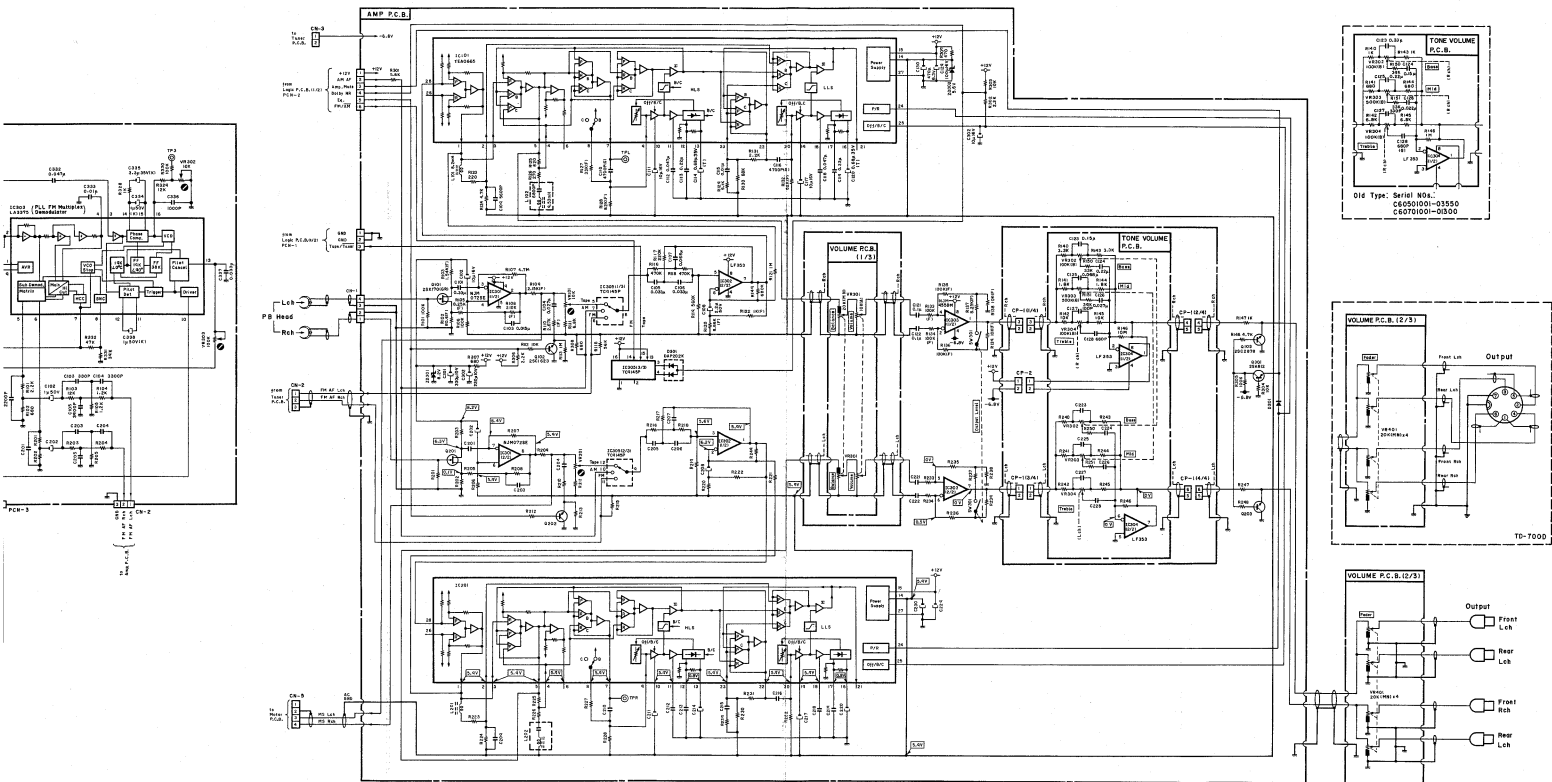
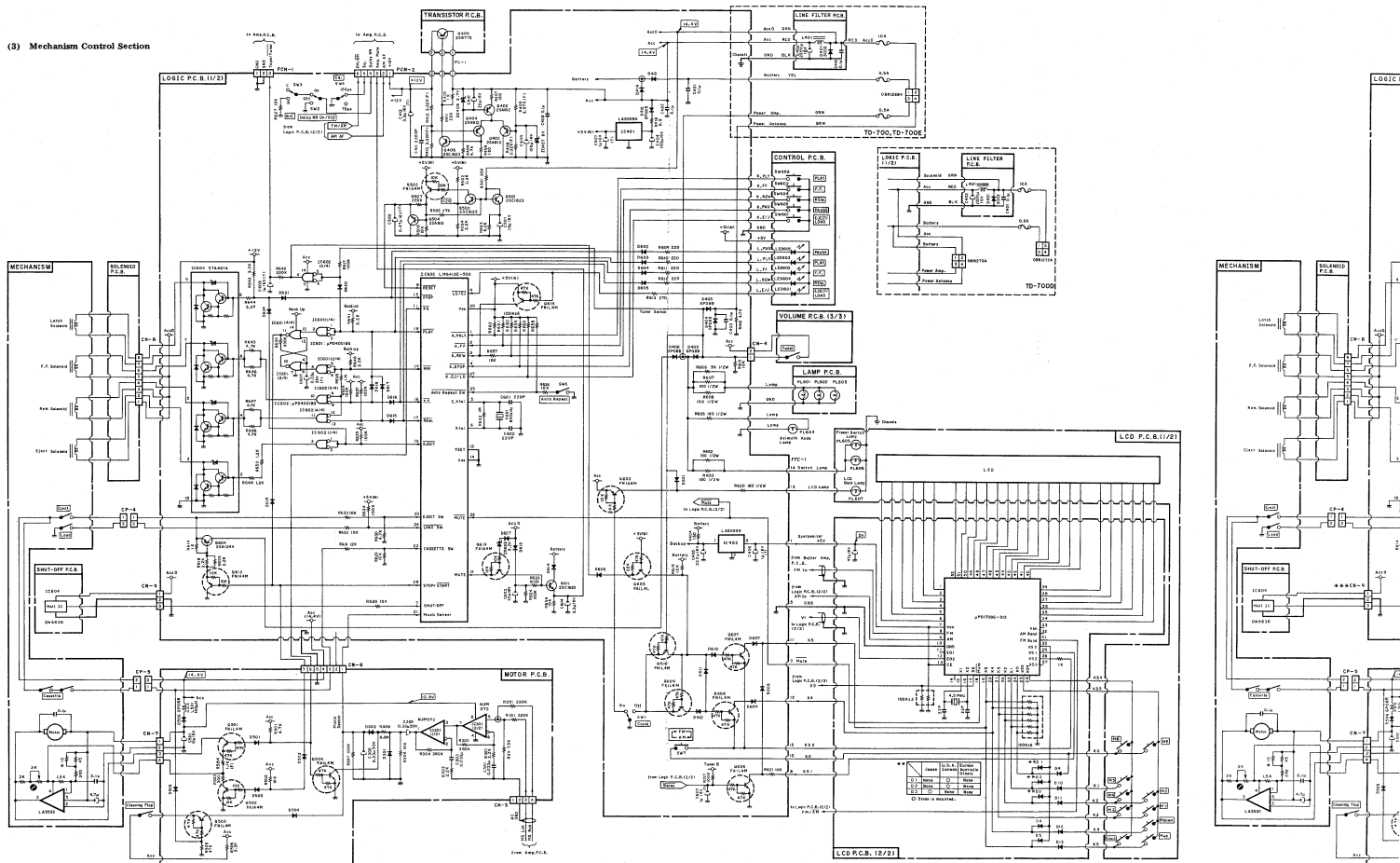


Fig. 9.2.2

(3) Mechanism Control Section



Note: Diode is MA221 or RLS-73 unless otherwise specified.

Fig. 9.2.3.1 C60504101 - (TD-700 & TD-700E)

\*\*\*: 3P coupler (CP-3) is used for the Models be C60501001 - 03398 (TD-700 & TD-700E).



### 13. SPECIFICATIONS

#### ● Cassette Deck Section

Tape Speed	1-7/8 ips (4.8 cm/sec.)
Wow and Flutter	Less than 0.05% WTD RMS Less than $\pm 0.1\%$ WTD Peak
Frequency Response	20—21,000 Hz $\pm 3$ dB (Nakamichi Test Tape)
Signal to Noise Ratio	Dolby C-Type NR On $< 70 \mu\text{s}$ , ZX Tape Better than 70 dB (400 Hz, 3% THD, IHF A-WTD RMS) Dolby B-Type NR On $< 70 \mu\text{s}$ , ZX Tape Better than 64 dB (400 Hz, 3% THD, IHF A-WTD RMS)
Channel Separation	Better than 34 dB (1 kHz, 0 dB)
Crosstalk	Better than 60 dB (1 kHz, 0 dB)
Winding Time (Fast Forward/Fast Reverse)	Approx. 75 sec. (with C-60 cassette)

#### ● Tuner Section

##### —FM—

Frequency Range	87.5—107.9 MHz
Sensitivity	18 dBf (IHF)
50 dB Quieting Sensitivity	20 dBf (Mono)
Total Harmonic Distortion	0.15% (Mono 1 kHz) Input 65 dBf 0.3% (Stereo 1 kHz) Input 65 dBf
S/N Ratio	65 dB (Mono)
Frequency Response	30—15,000 Hz $\pm 3$ dB
Alternate Channel Selectivity	65 dB ( $\pm 400$ kHz)
Capture Ratio	2 dB
Image Rejection at 98 MHz	55 dB
IF Rejection at 98 MHz	80 dB
Stereo Separation	35 dB (1 kHz) at 65 dBf
Antenna Terminals	75 ohms (unbalanced)

##### —AM—

Frequency Range	530—1620 kHz
Sensitivity	33 dB $\mu$

#### ● Preamplifier Section

Frequency Response	10—50,000 Hz $\pm 1$ dB
Output Level/Impedance	0.35 V (Low) or 1.1 V (High)/1 kohms
Total Harmonic Distortion	Less than 0.005%
Tone Control	
Bass	20 Hz $\pm 18$ dB
Mid	200 Hz $\pm 10$ dB
Treble	20 kHz $\pm 12$ dB

Dimensions	178 (W) x 50 (H) x 165 (D) mm 7 (W) x 2 (H) x 6-1/2 (D) inches
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Approximate Weight	1.9 kg/4 lb. 3 oz.
Power Source	14.4 V DC negative ground (10.8—15.6 V allowable)
Power Consumption	6.5 A Maximum

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